Exhibit F

RF Power Output/Frequency

Minimum Standard

Power: 1 Watts minimum
Frequency Tolerance: ±1.5ppm maximum

Measurements

Power: 1.05 Watts
Frequency: 860.6124
Error: -.11 ppm

To the best of my knowledge,
this data is accurate.

Signed: William Carlson

Date: 25-JUN-98

Exhibit F

Modulation Characteristics

Frequency response of the audio modulating circuits. The SVR-200 is designed to interface to a variety of mobile radios; the receiver audio that is available may or may not be de-emphasized. Therefore PC programming provids for flat audio response, or +6db/octave pre-emphasis; both responses were measured and plotted.

Frequency	Flat	+6db/octave pre-emphasis
200	-8	-22
300	0	-11
400	+.3	-7.5
500	+.5	-6
1000	0	0
1500	-.25	+2.5
2000	-.5	+4.5
2500	-.75	+6
3000	-1.75	+6
3500	-5	+3
4000	-12	-1
4500	-20	-9
5000	-26	-15

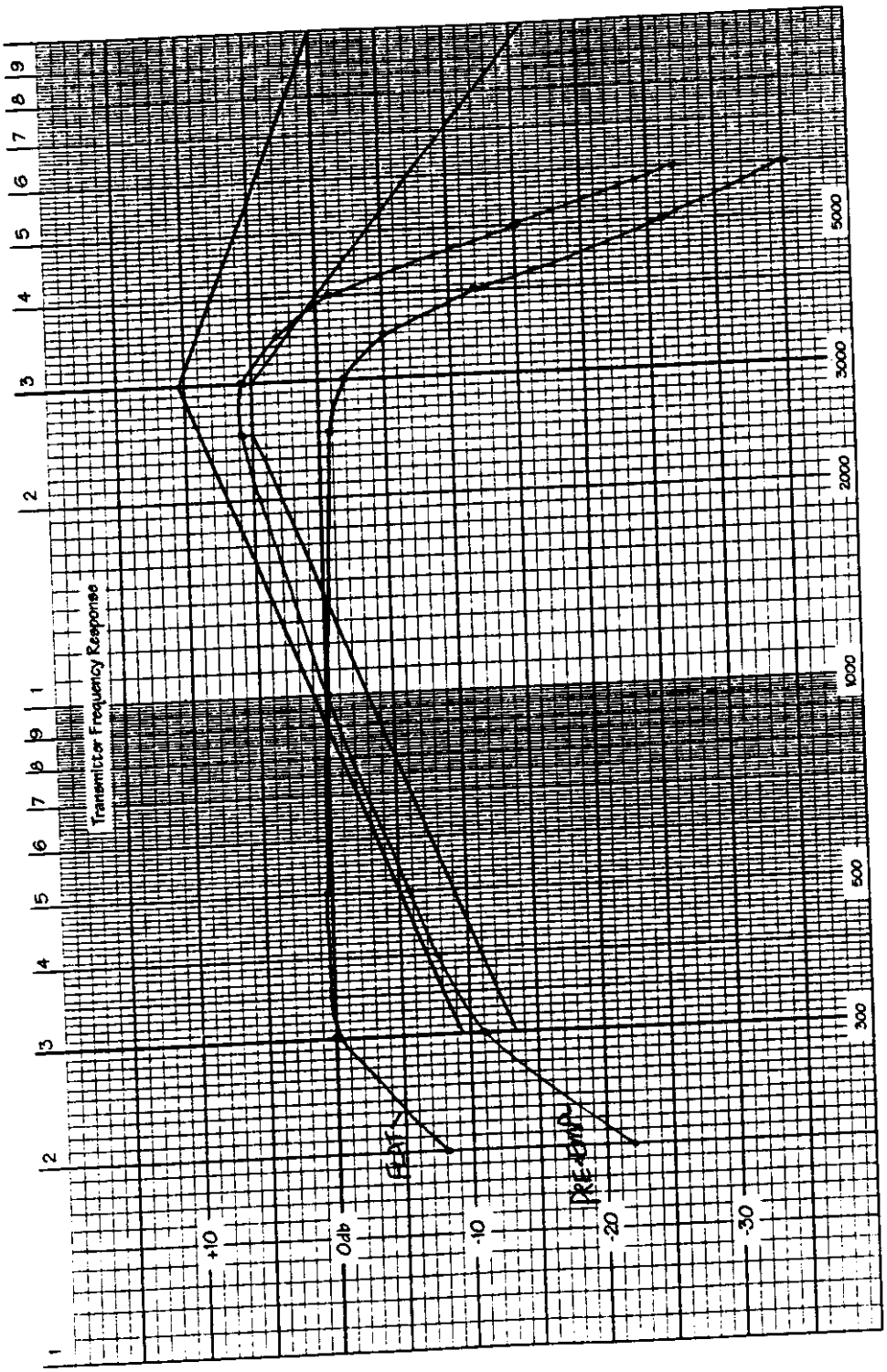
To the best of my knowledge, this data is accurate.

Signed: William Carlin

Date: 25-JUN-98

Subpart 2.9878 (a)(1)

Transmit Audio Response



To the best of my knowledge,
this data is accurate.

Signed: [signature] Date: 25-JUN-98

LRUSVR-200MA

Audio Lowpass Filter Response

Frequency	Response	
1000	0 db	
2000	-.46	
3000	-.2.6	
4000	-10.3	
5000	-26.7	
6000	-45.6	
7000	-52.7	
8000	-52.7	{Noise floor}
9000	-52.7	
10000	-52.7	
12000	-52.7	
14000	-52.7	
16000	-52.7	
18000	-52.7	
20000	-52.7	

To the best of my knowledge,
this data is accurate.

Signed: William Lewis

Date: 25-JUN-98

Modulation Characteristics
Limter Response
5kHz Maximum Deviation

Input Level	2.5 kHz	1.0 kHz	300 Hz
0 db	±1.60 kHz	±1.60 kHz	±1.60 kHz
2	1.89	1.96	2.07
4	2.23	2.43	2.53
6	2.72	3.08	3.16
8	3.14	3.71	3.91
10	3.29	3.99	4.18
12	3.36	4.13	4.28
14	3.44	4.23	4.36
16	3.47	4.34	4.47
18	3.50	4.36	4.54
20	3.53	4.38	4.63
22	3.54	4.42	4.78
24	3.56	4.43	4.83
26	3.57	4.36	4.81
28	3.57	4.28	4.78
30	3.57	4.29	4.81

To the best of my knowledge,
this data is accurate.

Signed: William Lulli

Date: 25-JUN-98

Modulation Characteristics
Limter Response
2.5kHz Maximum Deviation

Input Level	2.5 kHz	1.0 kHz	300 Hz
0 db	±825 Hz	±825 Hz	±825 Hz
2	1000	1000	1000
4	1200	1300	1300
6	1400	1625	1550
8	1500	2050	2000
10	1550	2200	2300
12	1600	2250	2350
14	1600	2400	2425
16	1600	2450	2480
18	1600	2450	2500
20	1600	2450	2500
22	1600	2450	2500
24	1600	2450	2500
26	1600	2450	2500
28	1600	2450	2500
30	1600	2450	2500

To the best of my knowledge,
this data is accurate.

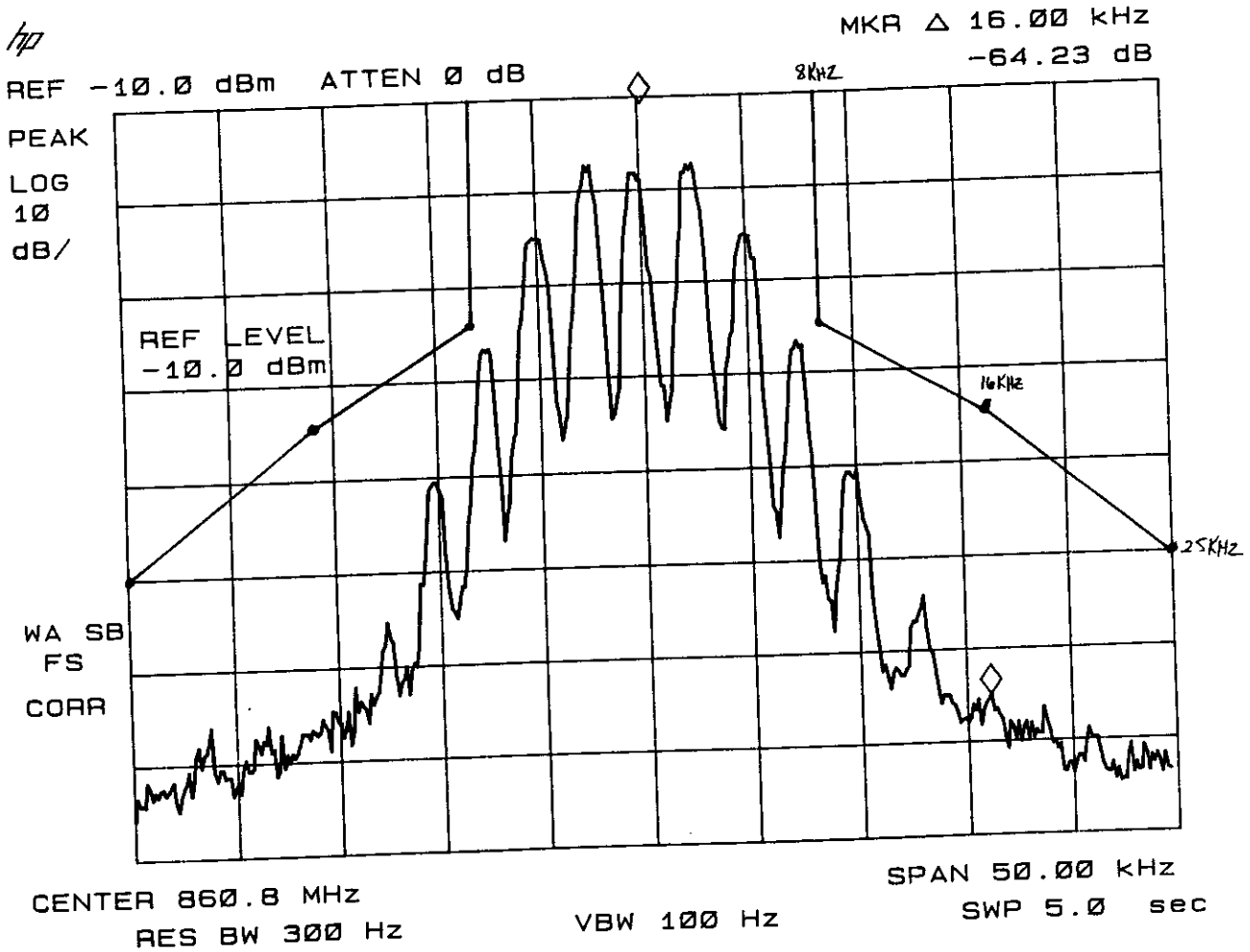
Signed: William Carli

Date: 25-JUN 98

Occupied Bandwidth
25kHz Channel Spacing

Emission 16K0F3E

The SVR-200 transmists voice and single tone frequencies in the 300-3000 bandwidth; emissions are amplitude limited and bandlimited by highpass and lowpass filters per the previous sections. The following plot was made with a 2.5kHz tone at 16db above 50% level for 1kHz (per EIA-152C).



To the best of my knowledge, this data is accurate.

Signed: William Lake

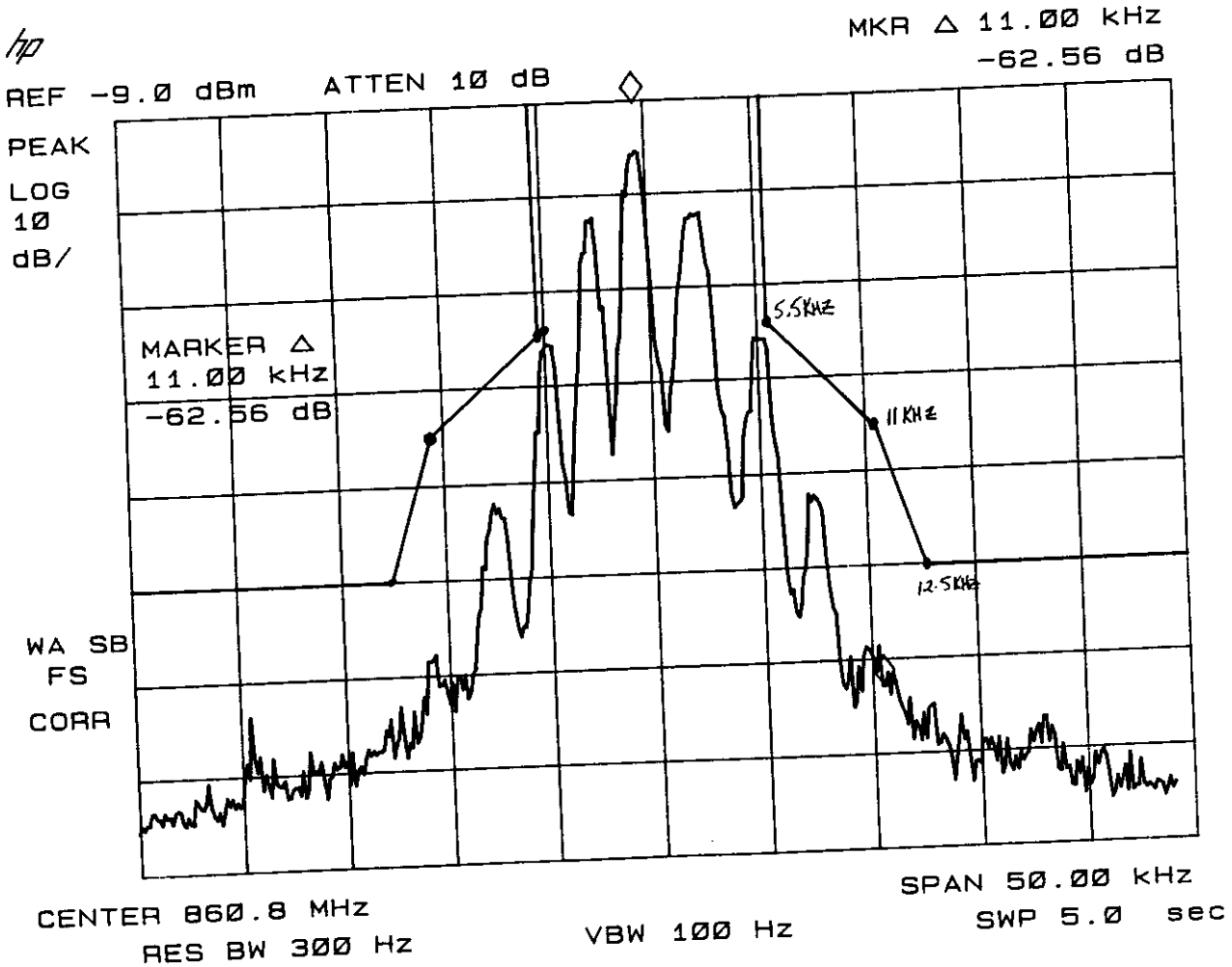
Date: 25-JUN 98

Exhibit F

Occupied Bandwidth
12.5kHz Channel Spacing

Emission 11K0F3E

The SVR-200 transmists voice and single tone frequencies in the 300-3000 bandwidth; emissions are amplitude limited and bandlimited by highpass and lowpass filters per the previous sections. The following plot was made with a 2.5kHz tone at 16db above 50% level for 1kHz (per EIA-152C).



To the best of my knowledge, this data is accurate.

Signed: William Conti

Date: 25-JUN-98

LRUSVR-200MA

Spurious emissions at the antenna terminal 1Watt

Minimum Standard

-43 dbc

Measurements

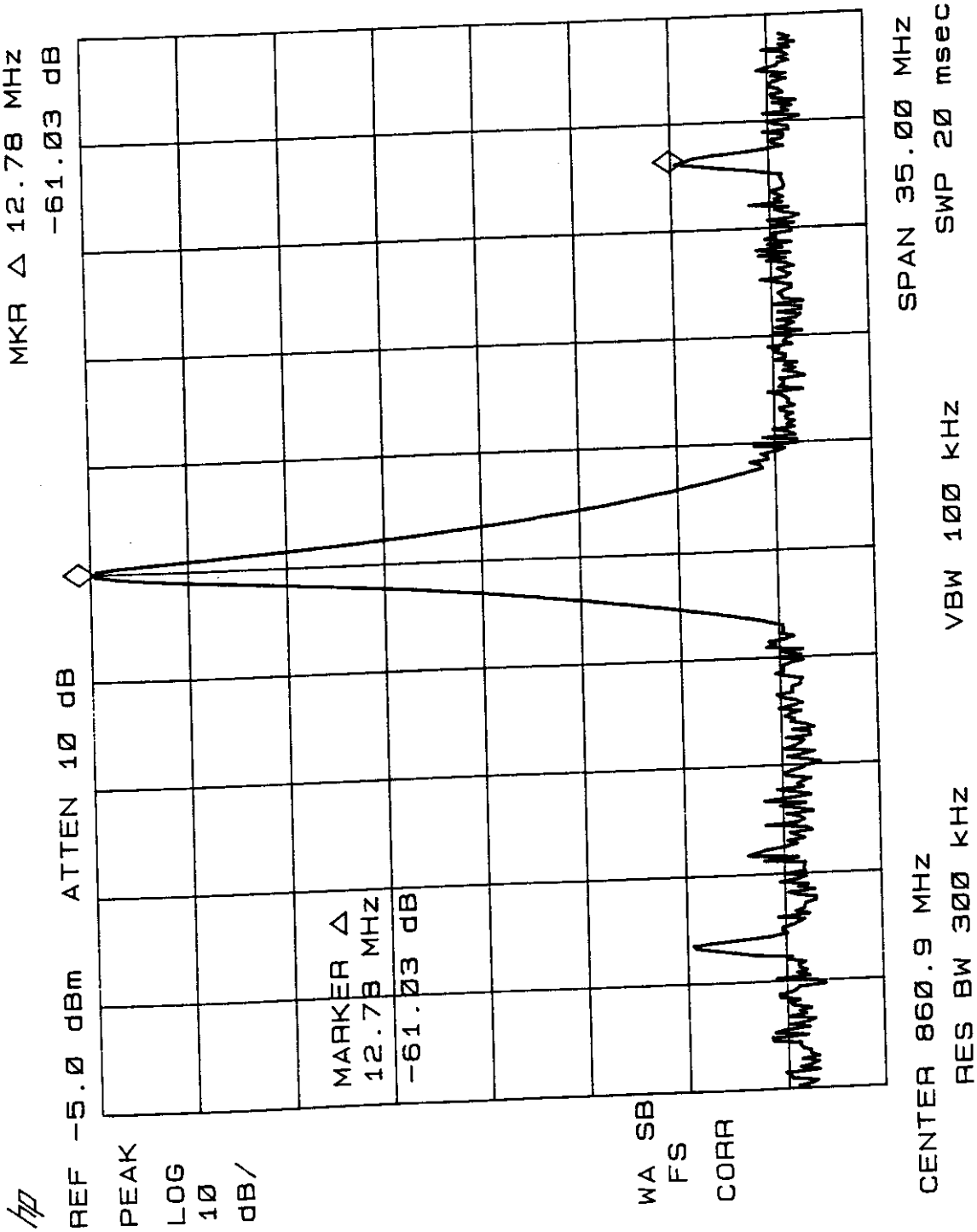
Power: 1.0 Watts

Frequency	Level	
847.8125 MHz	-61 dbc	Ref Osc Spur
860.6125	0	
873.4125	-61 dbc	Ref Osc Spur
1721.225	-58 dbc	2nd Harmonic
2581.8375	<-75dbc	3rd Harmonic

To the best of my knowledge,
this data is accurate.

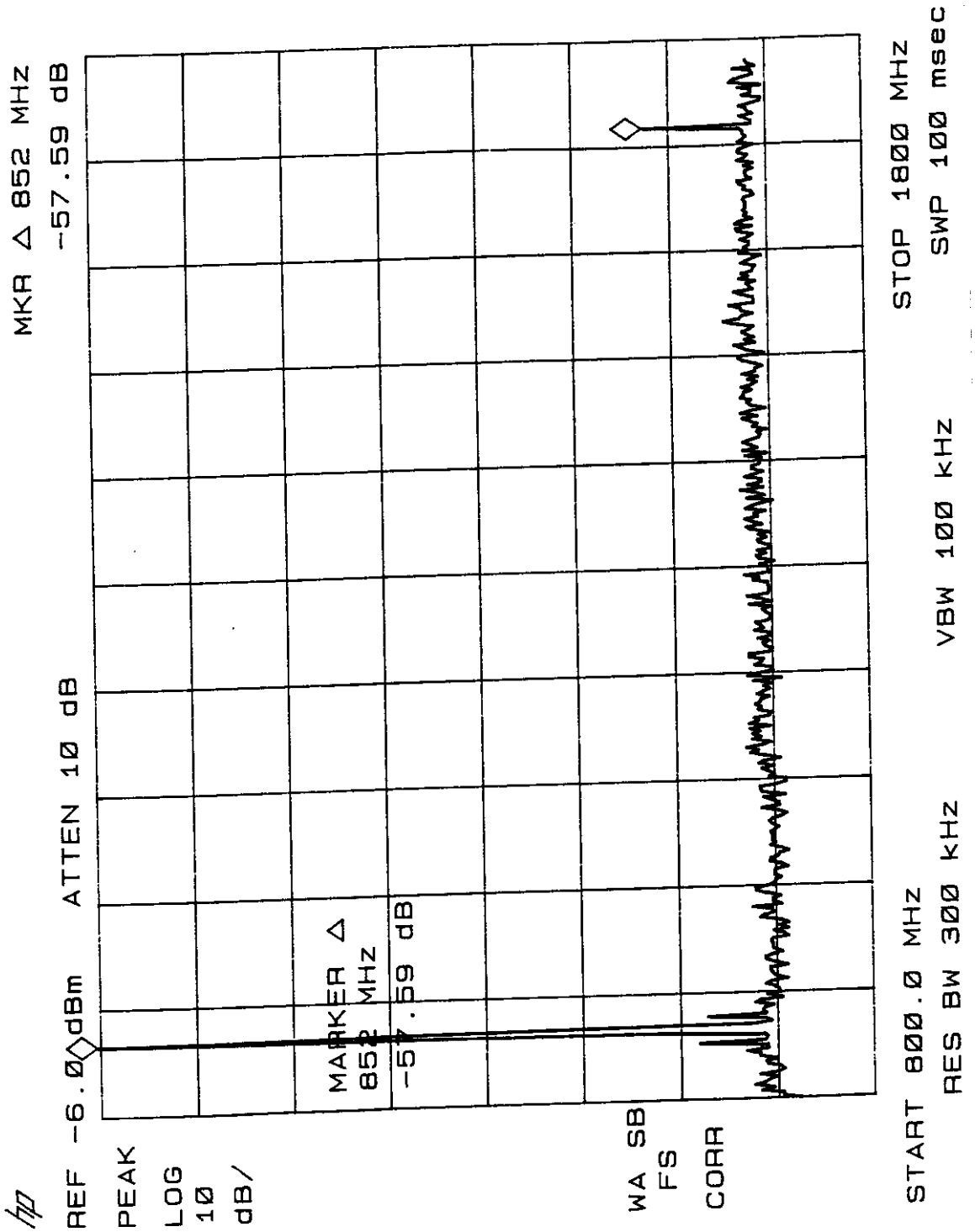
Signed: William Lauli

Date: 25-JUN-98



To the best of my knowledge,
this data is accurate.

Signed: Date: 25 JAN 98



To the best of my knowledge,
this data is accurate.

Signed: [signature] Date: 25 JUN 98

Spurious emissions at the antenna terminal 100 mW

Minimum Standard

-33 dbc

Measurements

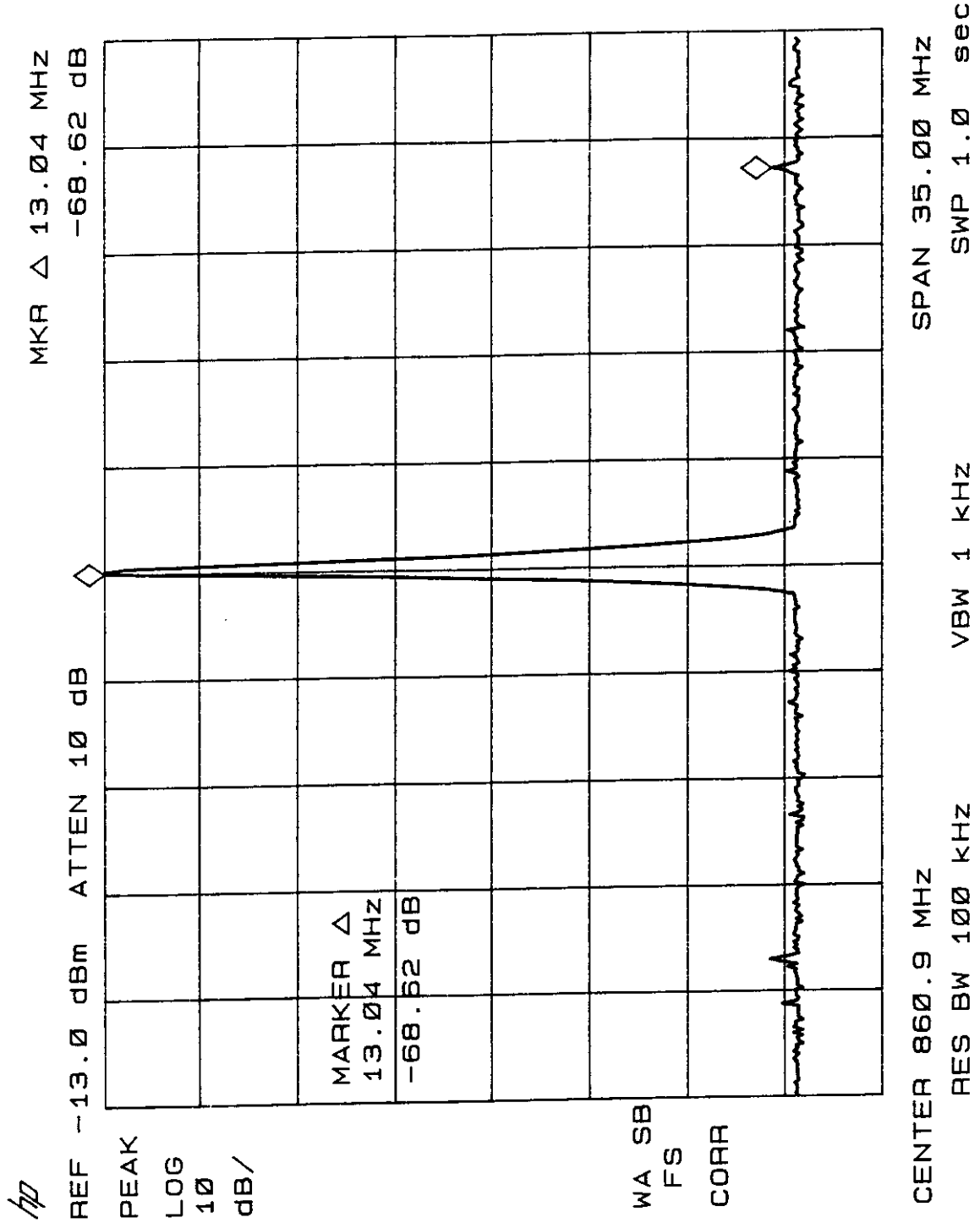
Power: 0.100 Watts

Frequency	Level	
847.8125 MHz	-68 dbc	Ref Osc Spur
860.6125	0	
873.4125	-68 dbc	Ref Osc Spur
1721.225	-59 dbc	2nd Harmonic
2581.8375	<-75dbc	3rd Harmonic

To the best of my knowledge,
this data is accurate.

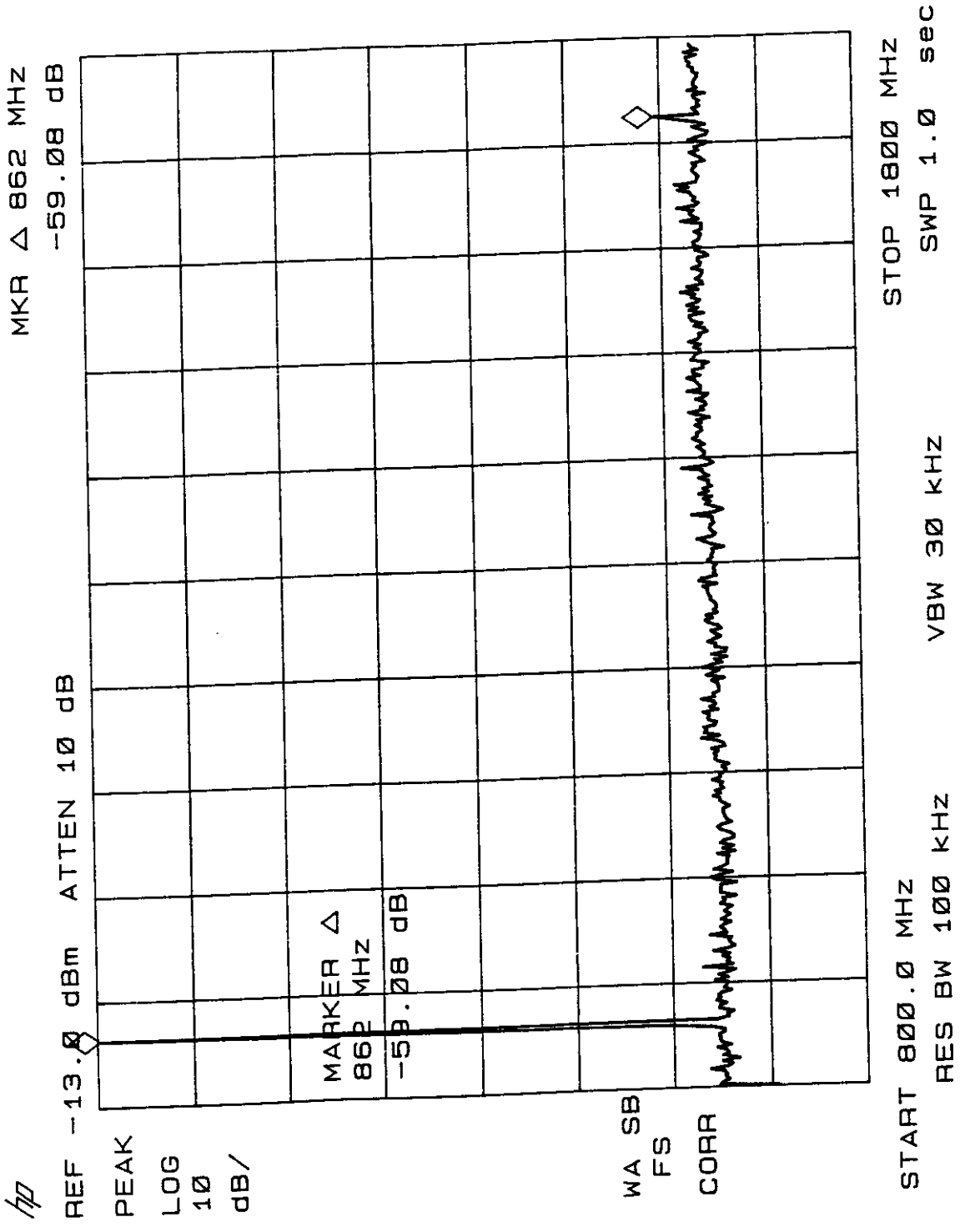
Signed: William Lee

Date: 25-JUN-98



To the best of my knowledge,
this data is accurate.

Signed: Date: 25 JUN 98



To the best of my knowledge,
this data is accurate.

Signed: [signature] Date: 25 JUN 98

Frequency Spectrum to be investigated

Harmonic	Ref Osc	Low	Mid	High	μP xtal
1	12.80	850.000	860.610	869.950	4.032
2	25.60	1700.000	1721.220	1739.900	8.064
3	38.40	2550.000	2581.830	2609.850	12.096
4	51.20	3440.000	3442.240	3479.800	16.128
5	64.00	4250.000	4303.050	4349.750	20.160
6	76.80	5100.000	5163.660	5219.700	24.192
7	89.60	5950.000	6024.270	6089.650	28.224
8	102.40	6800.000	6884.880	6959.600	31.224
9	115.20	7650.000	7745.490	7829.550	35.256
10	128.00	8500.000	8606.610	8699.500	39.288

To the best of my knowledge,
this data is accurate.

Signed: William Cole

Date: 25-JUN-98

INSTRUMENT SPECIALTIES COMPANY, INC.
World Compliance Center

Field Strength and Spurious Emissions Measurements (Reference: FCC Part 90 & Part 2, §2.993)
Frequency Tuned at: 850.00MHz (SVR-200 @100mW)
FCC OATS Radiated Emissions Data Sheet

Date: 06/24/1998

Antenna Polarity (V or H)	Frequency of Emission (MHz)	S. A. Reading (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Gain (dB)	Field Strength @ 3 meter (dBµV/m)	Attenuation Below Carrier (dBc)	FCC Limit @ 3 meter (dBc)
V	850.00	--	--	--	--	117.4	0.0	**
H	850.00	--	--	--	--	117.4	0.0	**
V	1700.0	68.4	26.9	7.0	35.0	67.3	50.1	33.0
H	1700.0	64.1	26.9	7.0	35.0	63.0	54.4	33.0
V	2550.0	58.1	29.6	9.4	35.0	62.1	55.3	33.0
H	2550.0	47.1	29.6	9.4	35.0	51.1	66.3	33.0
V	3440.0	50.5	30.5	12.0	35.0	58.0	59.4	33.0
H	3440.0	47.4	30.5	12.0	35.0	54.9	62.5	33.0
V	4250.0	56.1	32.0	14.0	34.5	67.6	49.8	33.0
H	4250.0	51.6	32.0	14.0	34.5	63.1	54.3	33.0
V	5100.0	41.7	33.4	16.8	34.5	57.4	60.0	33.0
H	5100.0	38.6	33.4	16.8	34.5	54.3	63.1	33.0
V	5950.0	37.4	34.3	18.2	34.5	55.4	62.0	33.0
H	5950.0	***	34.3	18.2	34.5	--	--	--
V	6800.0	***	35.7	--	--	--	--	--
H	6800.0	***	35.7	--	--	--	--	--
V	7650.0	***	37.4	--	--	--	--	--
H	7650.0	***	37.4	--	--	--	--	--
V	8500.0	***	37.6	--	--	--	--	--
H	8500.0	***	37.6	--	--	--	--	--

** FCC Limit; 43 + 10 Log(Po), where Po = 100mW = .1W
= 33.0dBc

*** Non-detectable Signal (Spectrum analyzer noise floor; 34.4 dBµV)

To the best of my knowledge, this data is accurate.

Signed: William Carlin

Date: 25-JUN-98

LRUSVR-200MA

INSTRUMENT SPECIALTIES COMPANY, INC.

World Compliance Center

Field Strength and Spurious Emissions Measurements (Reference: FCC Part 90 & Part 2, §2.993)
Frequency Tuned at: 860.61MHz (SVR-200 @100mW)
FCC OATS Radiated Emissions Data Sheet

Date: 06/24/1998

Antenna Polarity (V or H)	Frequency of Emission (MHz)	S. A. Reading (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Gain (dB)	Field Strength @ 3 meter (dBμV/m)	Attenuation Below Carrier (dBc)	FCC Limit @ 3 meter (dBc)
V	860.610	--	--	--	--	117.4	0.0	**
H	860.610	--	--	--	--	117.4	0.0	**
V	1721.22	69.6	27.1	7.0	35.0	68.7	48.7	33.0
H	1721.22	64.7	27.1	7.0	35.0	63.8	53.6	33.0
V	2581.83	73.0	29.8	9.4	35.0	77.2	40.2	33.0
H	2581.83	65.2	29.8	9.4	35.0	69.4	48.0	33.0
V	3442.24	66.9	30.5	12.0	35.0	74.4	43.0	33.0
H	3442.24	56.6	30.5	12.0	35.0	64.1	53.3	33.0
V	4303.05	64.3	32.0	14.0	34.5	75.8	41.6	33.0
H	4303.05	57.5	32.0	14.0	34.5	69.0	48.4	33.0
V	5163.66	47.5	33.5	16.8	34.5	63.3	54.1	33.0
H	5163.66	42.5	33.5	16.8	34.5	58.3	59.1	33.0
V	6024.27	38.4	34.3	18.2	34.5	56.4	61.0	33.0
H	6024.27	***	34.3	18.2	34.5	--	--	--
V	6884.88	***	35.7	--	--	--	--	--
H	6884.88	***	35.7	--	--	--	--	--
V	7745.49	***	37.4	--	--	--	--	--
H	7745.49	***	37.4	--	--	--	--	--
V	8606.61	***	37.5	--	--	--	--	--
H	8606.61	***	37.5	--	--	--	--	--

** FCC Limit; 43 + 10 Log(Po), where Po = 100mW = .1W
= 33.0dBc

*** Non-detectable Signal

To the best of my knowledge,
this data is accurate.

Signed: William Lee

Date: 25-JUN 98

INSTRUMENT SPECIALTIES COMPANY, INC.
World Compliance Center

Field Strength and Spurious Emissions Measurements (Reference: FCC Part 90 & Part 2, §2.993)
Frequency Tuned at: 869.95MHz (SVR-200 @100mW)
FCC OATS Radiated Emissions Data Sheet

Date: 06/24/1998

Antenna Polarity (V or H)	Frequency of Emission (MHz)	S. A. Reading (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Gain (dB)	Field Strength @ 3 meter (dBμV/m)	Attenuation Below Carrier (dBc)	FCC Limit @ 3 meter (dBc)
V	869.950	--	--	--	--	117.4	0.0	**
H	869.950	--	--	--	--	117.4	0.0	**
V	1739.90	65.1	27.2	7.0	35.0	64.3	53.1	33.0
H	1739.90	60.7	27.2	7.0	35.0	59.9	57.5	33.0
V	2609.85	54.0	29.8	9.4	35.0	58.2	59.2	33.0
H	2609.85	50.1	29.8	9.4	35.0	54.3	63.1	33.0
V	3479.80	50.0	30.5	12.0	35.0	57.5	59.9	33.0
H	3479.80	47.5	30.5	12.0	35.0	55.0	62.4	33.0
V	4349.75	55.4	32.0	14.0	34.5	66.9	50.5	33.0
H	4349.75	50.8	32.0	14.0	34.5	62.3	55.1	33.0
V	5219.70	45.4	33.6	16.8	34.5	61.3	56.1	33.0
H	5219.70	39.9	33.6	16.8	34.5	55.8	61.6	33.0
V	6089.65	34.4	34.5	18.2	34.5	52.6	64.8	33.0
H	6089.65	***	34.5	18.2	34.5	--	--	--
V	6959.60	***	35.9	--	--	--	--	--
H	6959.60	***	35.9	--	--	--	--	--
V	7829.55	***	37.3	--	--	--	--	--
H	7829.55	***	37.3	--	--	--	--	--
V	8699.50	***	37.5	--	--	--	--	--
H	8699.50	***	37.5	--	--	--	--	--

** FCC Limit; 43 + 10 Log(Po), where Po = 100mW = .1W
= 33.0dBc

*** Non-detectable Signal

To the best of my knowledge,
this data is accurate.

Signed: William Carlin

Date: 25-JUN-98

LRUSVR-200MA

INSTRUMENT SPECIALTIES COMPANY, INC.
World Compliance Center

Field Strength and Spurious Emissions Measurements (Reference: FCC Part 90 & Part 2, §2.993)
Frequency Tuned at: 850.00MHz (SVR-200 @1W)
FCC OATS Radiated Emissions Data Sheet

Date: 06/24/1998

Antenna Polarity (V or H)	Frequency of Emission (MHz)	S. A. Reading (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Gain (dB)	Field Strength @ 3 meter (dBμV/m)	Attenuation Below Carrier (dBc)	FCC Limit @ 3 meter (dBc)
V	850.00	--	--	--	--	127.4	0.0	**
H	850.00	--	--	--	--	127.4	0.0	**
V	1700.0	78.5	26.9	7.0	35.0	77.4	50.0	43.0
H	1700.0	76.0	26.9	7.0	35.0	74.9	52.5	43.0
V	2550.0	72.6	29.6	9.4	35.0	76.6	50.8	43.0
H	2550.0	58.9	29.6	9.4	35.0	62.9	64.5	43.0
V	3440.0	67.1	30.5	12.0	35.0	74.6	52.8	43.0
H	3440.0	58.4	30.5	12.0	35.0	65.9	61.5	43.0
V	4250.0	65.5	32.0	14.0	34.5	77.0	50.4	43.0
H	4250.0	57.1	32.0	14.0	34.5	68.6	58.8	43.0
V	5100.0	49.9	33.4	16.8	34.5	65.6	61.8	43.0
H	5100.0	46.5	33.4	16.8	34.5	62.2	65.2	43.0
V	5950.0	39.4	34.3	18.2	34.5	57.4	70.0	43.0
H	5950.0	***	34.3	18.2	34.5	--	--	--
V	6800.0	***	35.7	--	--	--	--	--
H	6800.0	***	35.7	--	--	--	--	--
V	7650.0	***	37.4	--	--	--	--	--
H	7650.0	***	37.4	--	--	--	--	--
V	8500.0	***	37.6	--	--	--	--	--
H	8500.0	***	37.6	--	--	--	--	--

** FCC Limit; 43 + 10 Log(Po), where Po = 1W
= 43.0dBc

*** Non-detectable Signal

To the best of my knowledge,
this data is accurate.

Signed: William Lee

Date: 25-JUN-98

Exhibit 1

Subpart 2.993 (a)

INSTRUMENT SPECIALTIES COMPANY, INC.

World Compliance Center

Field Strength and Spurious Emissions Measurements (Reference: FCC Part 90 & Part 2, §2.993)
Frequency Tuned at: 860.61MHz (SVR-200 @1W)
FCC OATS Radiated Emissions Data Sheet

Date: 06/24/1998

Antenna Polarity (V or H)	Frequency of Emission (MHz)	S. A. Reading (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Gain (dB)	Field Strength @ 3 meter (dBμV/m)	Attenuation Below Carrier (dBc)	FCC Limit @ 3 meter (dBc)
V	860.610	--	--	--	--	127.4	0.0	**
H	860.610	--	--	--	--	127.4	0.0	**
V	1721.22	81.2	27.1	7.0	35.0	80.3	47.1	43.0
H	1721.22	76.4	27.1	7.0	35.0	75.5	51.9	43.0
V	2581.83	75.7	29.8	9.4	35.0	79.9	47.5	43.0
H	2581.83	72.9	29.8	9.4	35.0	77.1	50.3	43.0
V	3442.24	70.2	30.5	12.0	35.0	77.7	49.7	43.0
H	3442.24	67.7	30.5	12.0	35.0	75.2	52.2	43.0
V	4303.05	68.1	32.0	14.0	34.5	79.6	47.8	43.0
H	4303.05	66.4	32.0	14.0	34.5	77.9	49.5	43.0
V	5163.66	57.5	33.5	16.8	34.5	73.3	54.1	43.0
H	5163.66	47.9	33.5	16.8	34.5	63.7	63.7	43.0
V	6024.27	38.6	34.3	18.2	34.5	56.6	70.8	43.0
H	6024.27	***	34.3	18.2	34.5	--	--	--
V	6884.88	***	35.7	--	--	--	--	--
H	6884.88	***	35.7	--	--	--	--	--
V	7745.49	***	37.4	--	--	--	--	--
H	7745.49	***	37.4	--	--	--	--	--
V	8606.61	***	37.5	--	--	--	--	--
H	8606.61	***	37.5	--	--	--	--	--

** FCC Limit; 43 + 10 Log(Po), where Po = 1W
= 43.0dBc

*** Non-detectable Signal

To the best of my knowledge,
this data is accurate.

Signed: William Carli

Date: 25-JUN-98

LRUSVR-200MA

INSTRUMENT SPECIALTIES COMPANY, INC.
World Compliance Center

Field Strength and Spurious Emissions Measurements (Reference: FCC Part 90 & Part 2, §2.993)
Frequency Tuned at: 869.95MHz (SVR-200 @1W)
FCC OATS Radiated Emissions Data Sheet

Date: 06/24/1998

Antenna Polarity (V or H)	Frequency of Emission (MHz)	S. A. Reading (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamplifier Gain (dB)	Field Strength @ 3 meter (dBμV/m)	Attenuation Below Carrier (dBc)	FCC Limit @ 3 meter (dBc)
V	869.950	--	--	--	--	127.4	0.0	**
H	869.950	--	--	--	--	127.4	0.0	**
V	1739.90	76.4	27.2	7.0	35.0	75.6	51.8	43.0
H	1739.90	72.3	27.2	7.0	35.0	71.5	55.9	43.0
V	2609.85	75.6	29.8	9.4	35.0	79.8	47.6	43.0
H	2609.85	73.0	29.8	9.4	35.0	77.2	50.2	43.0
V	3479.80	63.4	30.5	12.0	35.0	70.9	56.5	43.0
H	3479.80	58.2	30.5	12.0	35.0	65.7	61.7	43.0
V	4349.75	61.0	32.0	14.0	34.5	72.5	54.9	43.0
H	4349.75	57.0	32.0	14.0	34.5	68.5	58.9	43.0
V	5219.70	52.3	33.6	16.8	34.5	68.2	59.2	43.0
H	5219.70	44.1	33.6	16.8	34.5	60.0	67.4	43.0
V	6089.65	39.3	34.5	18.2	34.5	57.5	69.9	43.0
H	6089.65	***	34.5	18.2	34.5	--	--	--
V	6959.60	***	35.9	--	--	--	--	--
H	6959.60	***	35.9	--	--	--	--	--
V	7829.55	***	37.3	--	--	--	--	--
H	7829.55	***	37.3	--	--	--	--	--
V	8699.50	***	37.5	--	--	--	--	--
H	8699.50	***	37.5	--	--	--	--	--

** FCC Limit; 43 + 10 Log(Po), where Po = 1W
= 43.0dBc

*** Non-detectable Signal

To the best of my knowledge,
this data is accurate.

Signed: William Carle

Date: 25-JUN-98

LRUSVR-200MA

Frequency Stability

Minimum Standard

±1.5 ppm (±1290 Hz)

(a) Frequency stability over temperature.

Temp (°C)	Frequency	Error
-30	860.613615	+1.3 PPM
-20	860.613450	+1.1 PPM
-10	860.613110	+0.7 PPM
0	860.612755	+0.3 PPM
+10	860.612585	+0.1 PPM
+20	860.612500	+0.0 PPM
+30	860.612330	-0.2 PPM
+40	860.612410	-0.1 PPM
+50	860.612580	+0.1 PPM
+60	860.613170	+0.8 PPM

To the best of my knowledge, this data is accurate.

Signed: William Lalin

Date: 25-JUN 98

Frequency Stability

Minimum Standard

±5 ppm

(b) Frequency stability with variation in primary supply voltage

Voltage	%standard	Frequency	%Error
11.56	-15%	860.612595	+.11 PPM
12.24	-10%	860.612595	+.11 PPM
12.92	-5%	860.612595	+.11 PPM
13.60	0	860.612595	+.11 PPM
14.28	+5%	860.612595	+.11 PPM
14.96	+10%	860.612595	+.11 PPM
15.64	+15%	860.612595	+.11 PPM

To the best of my knowledge,
this data is accurate.

Signed: William Carli

Date: 25-JUN 98

Receiver Conducted Spurious

Minimum Standard

2 nW -57 dbm

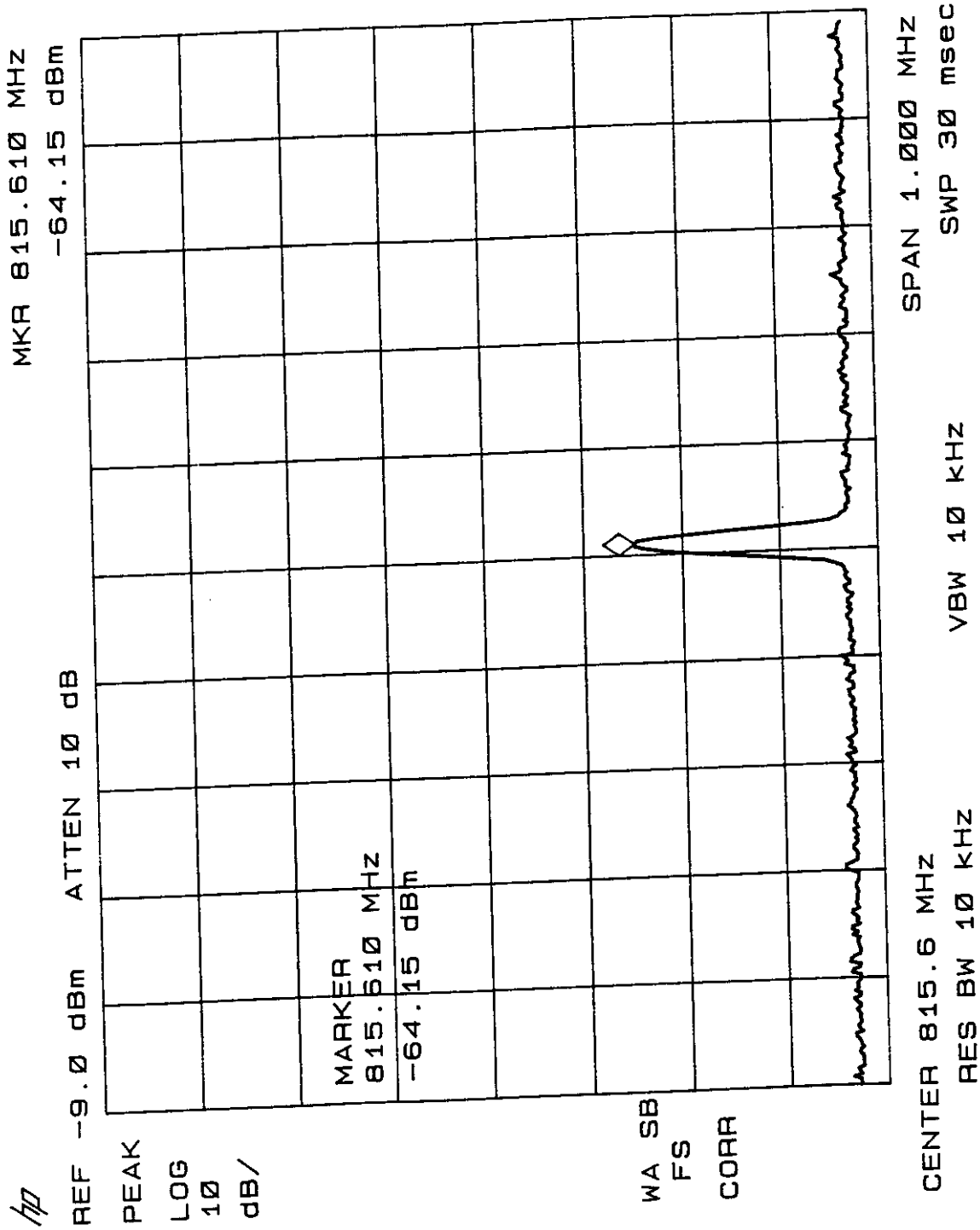
Receiver conducted Spurious at antenna port:

.38 nW -64 dbm

To the best of my knowledge,
this data is accurate.

Signed: William Lewis

Date: 25-JUN-98



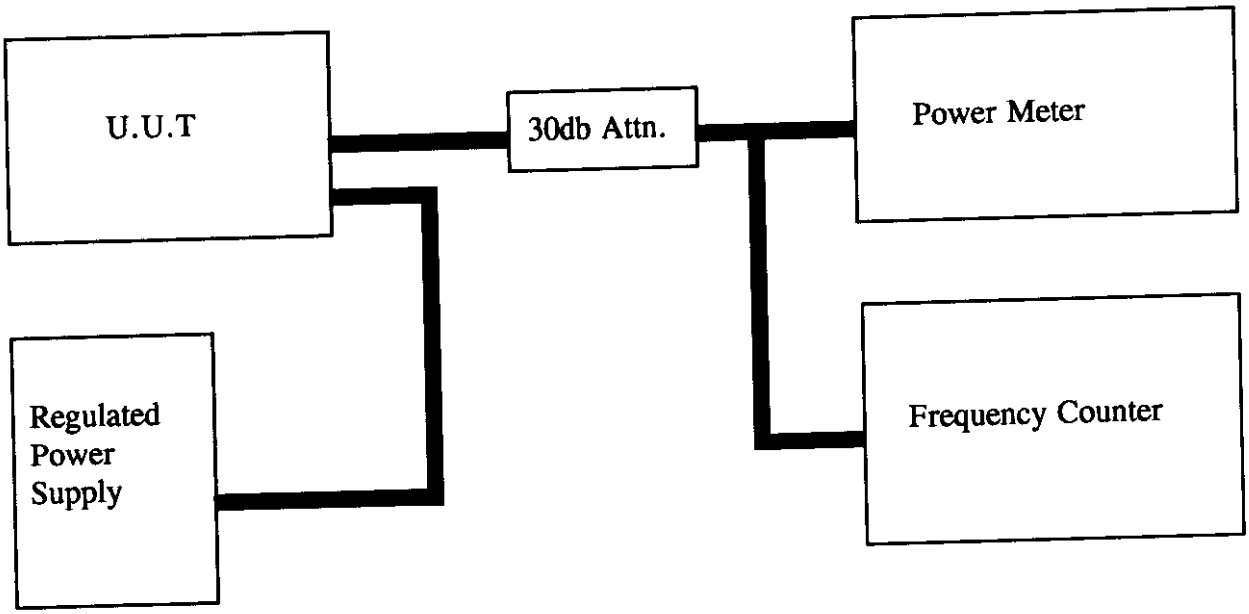
To the best of my knowledge,
this data is accurate.

Signed: William Lieb Date: 25-JUN-98

Measurement Procedure

Subpart 2.985 (a)
RF Power Out/Frequency

Test Set up



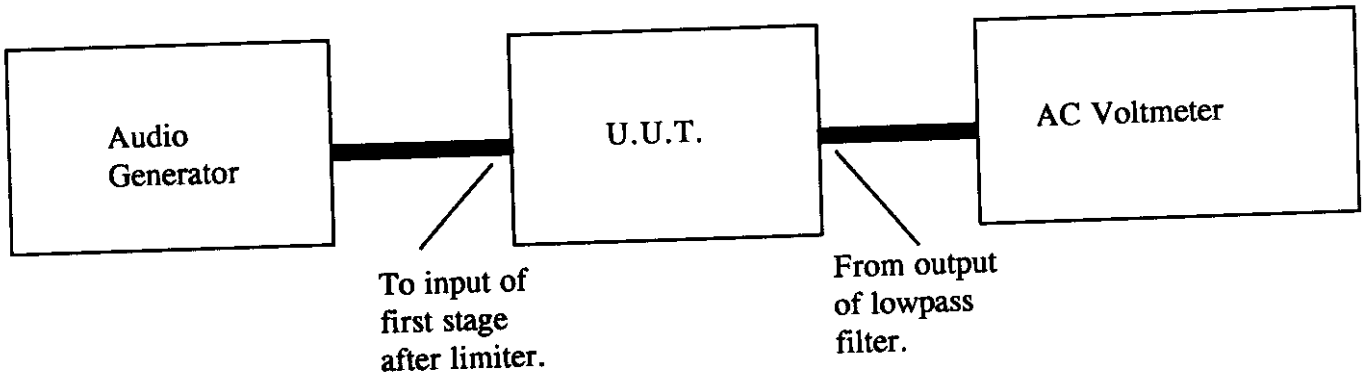
Procedure:

Power supply is set to operating voltage and the unit under test is put into the transmit mode; RF power is read directly on the RF power meter. Frequency may also be read directly connected to the same point.

Measurement Procedure

Subpart 2.987 (a)
Modulation Characteristics

Audio Low Pass filter response



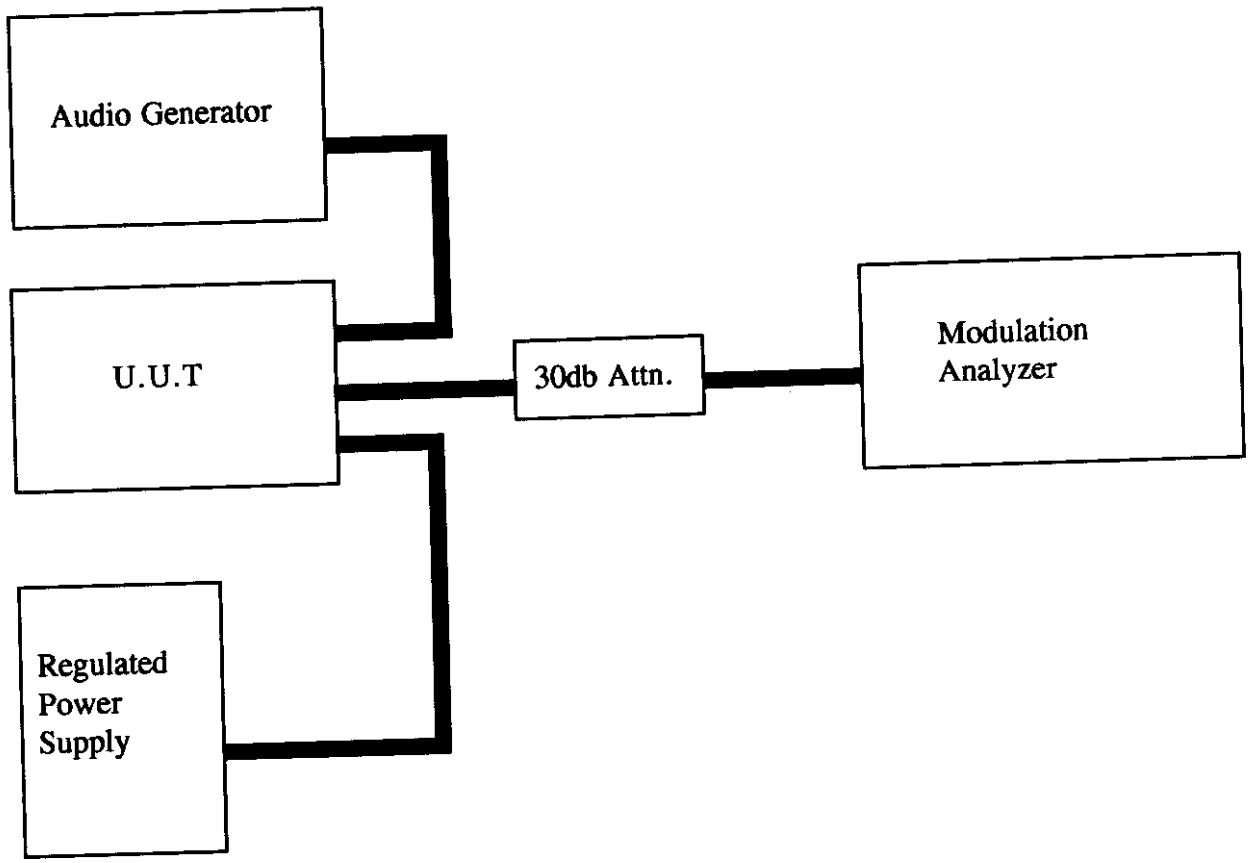
Procedure:

An audio generator is connected to the lowpass filter input just after the limiter circuit, and the AC voltmeter is connected to the lowpass filter output, before the modulator. The audio generator is varied between 1000Hz and 20,000 Hz with it's level held constant while the level of the filter is recorded.

Measurement Procedure

Subpart 2.987 (a)
Modulation Characteristics

Modulation frequency response



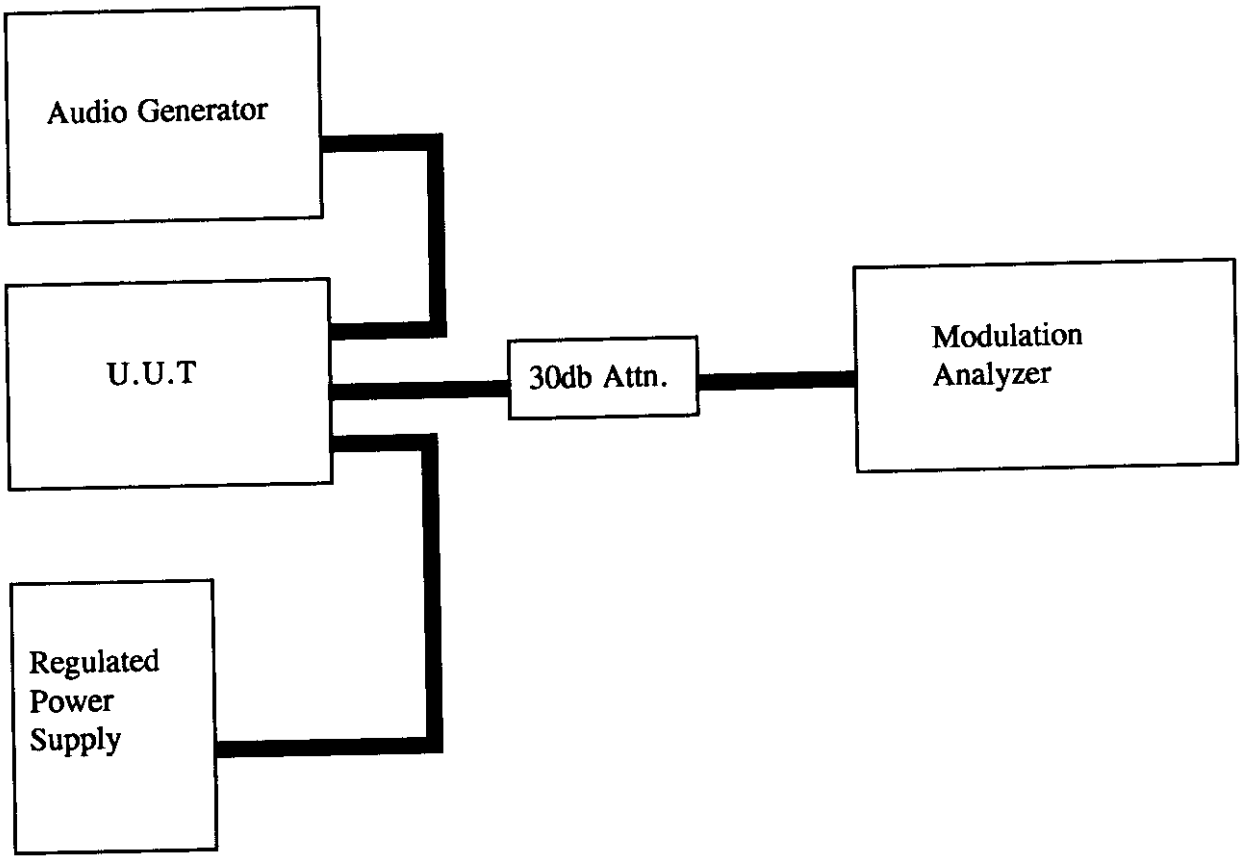
Procedure:

Adjust the audio input level at 1kHz to produce 30% of system deviation. Change the frequency of the audio generator and record the change in level needed to maintain 30% deviation.

Measurement Procedure

Subpart 2.987 (b)
Modulation Characteristics

Limiter response

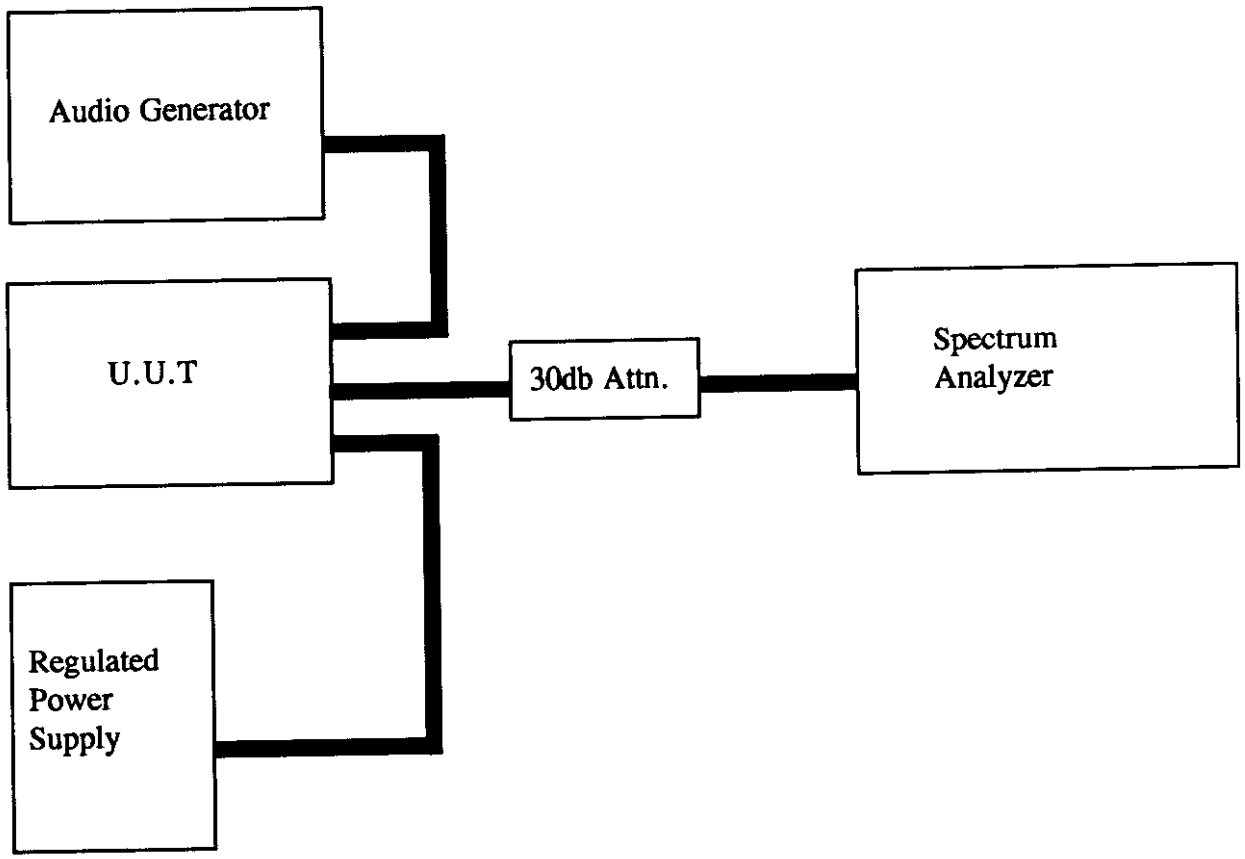


Procedure:

The audio generator is adjusted for 33 % of rated system deviation at 2500 Hz frequency. This level will be the 0db reference. The audio level is then increased from 0db to 30db in 2db increments and the level of modulation is recorded. The measurement procedure is then repeated for 1000 Hz and 300 Hz.

Measurement Procedure

Subpart 2.989 (c)(1)
Occupied Bandwidth

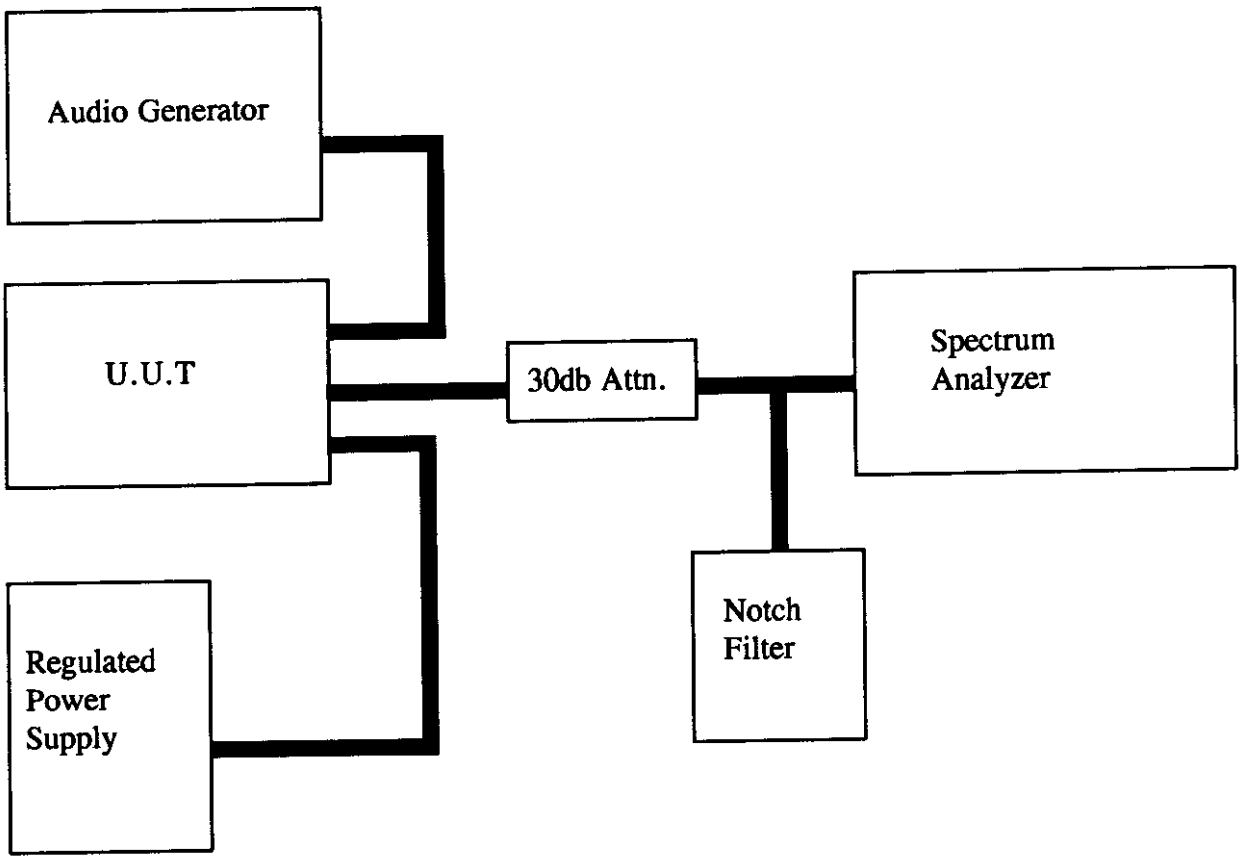


Procedure:

The specturm analyzer center frequency is set to the transmit frequency and the span is set to twice the authorized channel spacing. The resolution and video bandwidth are adjusted for proper response to the system deviation and modulating frequency. The audio generator is set on the frequency of maximum audio response and its level adjusted for 50% system deviation, then increased by 16db. The audio frequency is then changed to 2500 Hz and the occupied bandwidth is recorded from the spectrum analyzer.

Measurement Procedure

Subpart 2.991
Conducted spurious emissions at the antenna terminals

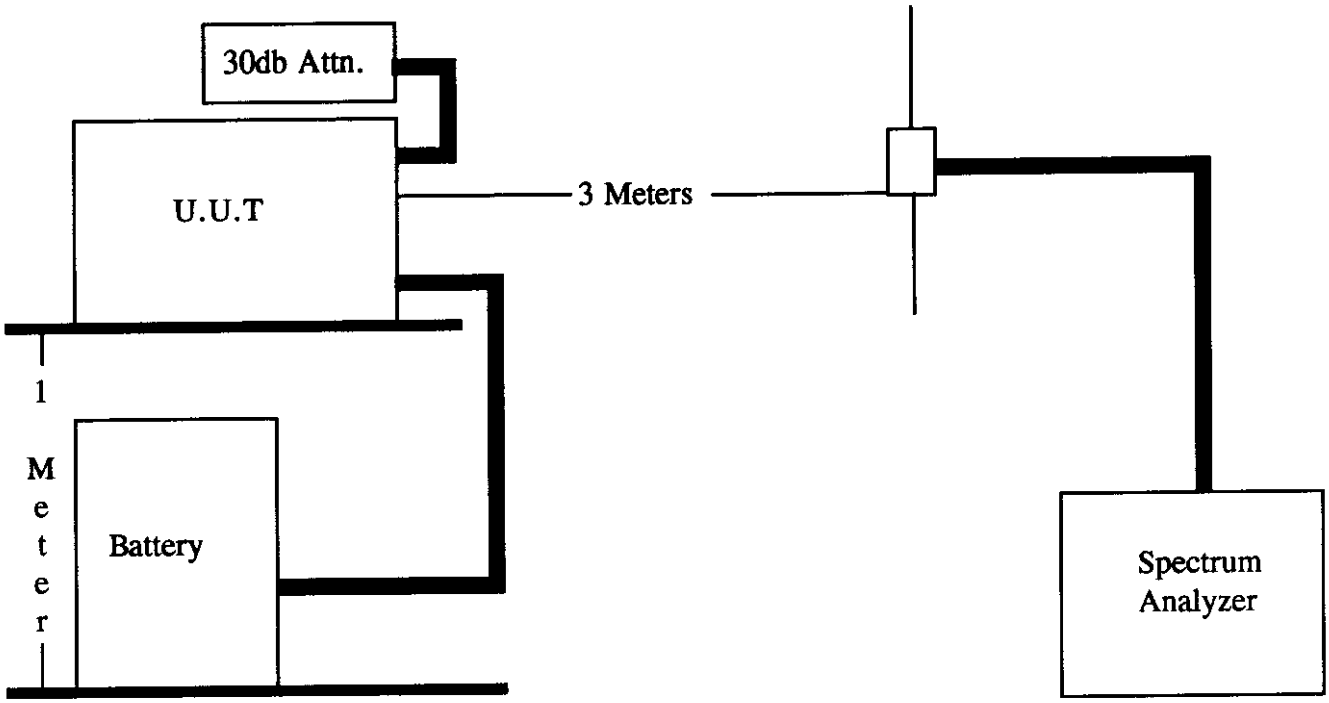


Procedure:

The radio is set up as in Subpart 2.989 and all spurious levels and harmonics recorded using the spectrum analyzer.

Measurement Procedure

Subpart 2.993
Field strength of radiated spurious signals



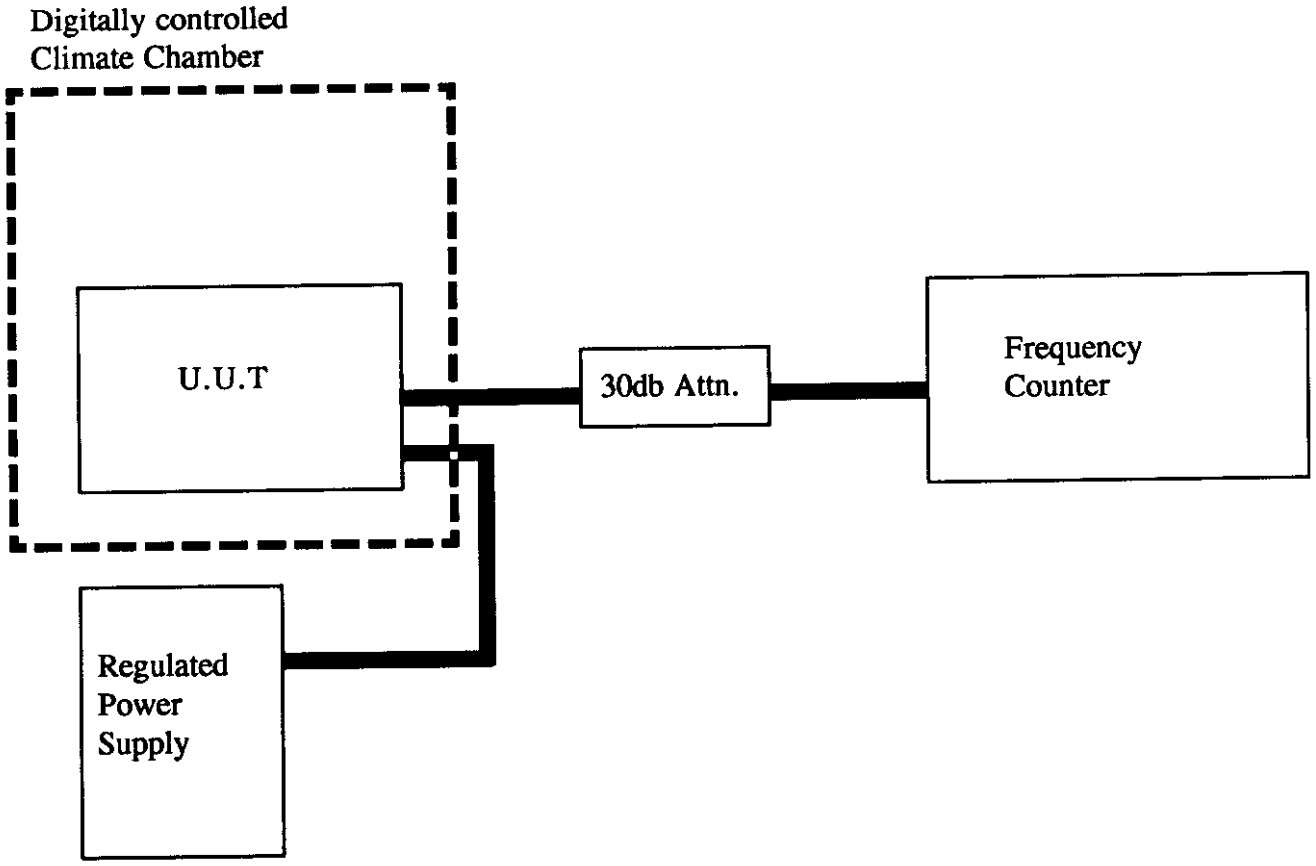
Procedure:

The radio is set up as shown and a 50 ohm noninductive load is connected to the antenna terminals. The transmitter is activated with full modulation and the frequency spectrum is searched up to the 10th harmonic of the transmitter with the length of the receiving antenna adjusted when necessary. The radio stand is rotated until the maximum signal is found and recorded. When a signal is found, the antenna height is adjusted until the maximum signal strength is found. This level is recorded and the procedure is repeated for both horizontal and vertical polarization.

The recorded levels are compared to the level a transmitter would produce connected to a halfwave antenna at the same distance. For a 1 Watt transmitter, this level is 127.4 dbμV. For a 100mW transmitter, this level is 117.4 dbμV

Measurement Procedure

Subpart 2.995 (a)(b)
Frequency stability with variation of ambient temperature

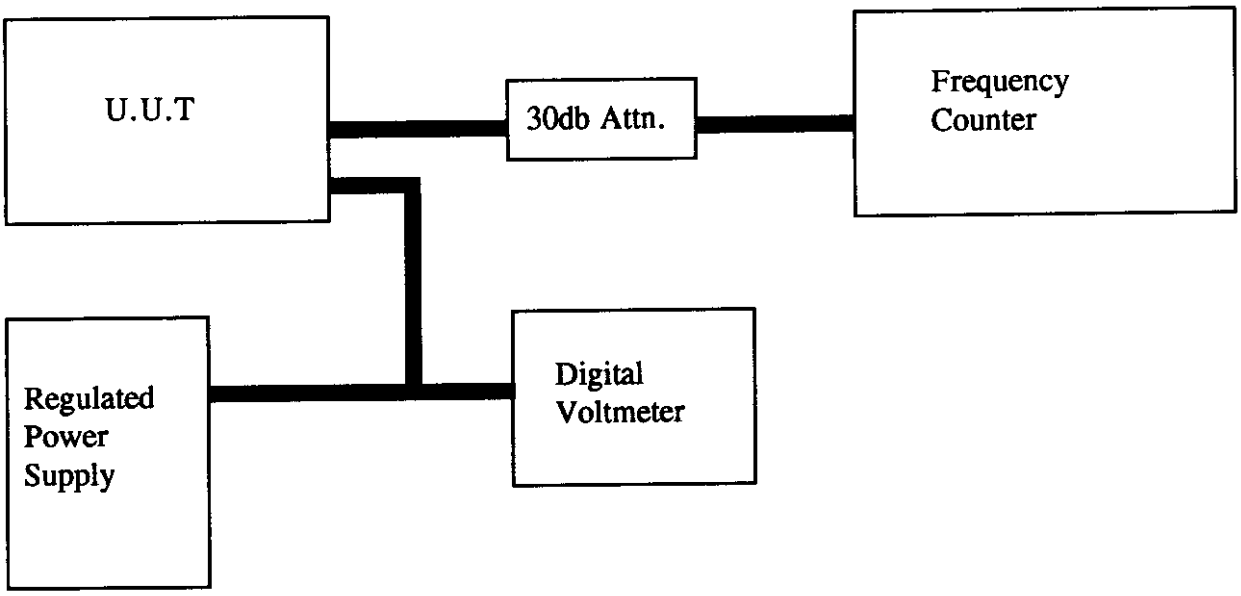


Procedure:

The radio is brought up to +50°C allowing two hours for the radio to stabilize after the chamber reaches temperature. Power is applied and the frequency is immediately read. Power is then removed and the climate chamber lowered by 10°C allowing 30 minutes for the radio to stabilize after the chamber reaches temperature. The power is applied again, and another frequency reading is taken immediately. This process continues down to -30°C.

Measurement Procedure

Subpart 2.995 (d)
Frequency stability with variation of primary supply voltage.

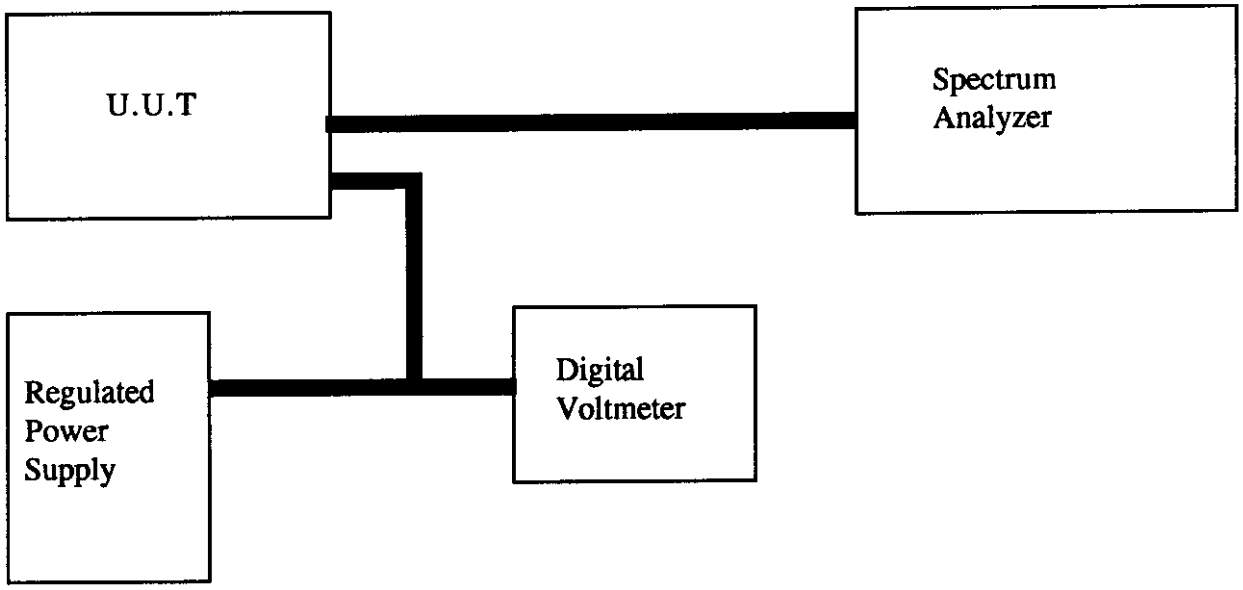


Procedure:

The primary supply voltage is varied in steps of 5% from +15% to -15% of normal operating voltage. The frequency is recorded at each 5% step.

Measurement Procedure

Subpart 2.993
Receiver Conducted Spurious



Procedure:

The receiver antenna port is connected directly to the input of the spectrum anaylzer and placed in the receive mode. The local oscillator conducted spurious is read directly in dbm and is equal to the operating frequency plus the first IF.

Measurement Procedure

List of test equipment

1.	Regulated DC power supply	HP 6294A
2.	Oscilloscope	Tektronics TDS-340
3.	Frequency counter	HP 8920
4.	Digital multimeter	Fluke model 77
5.	Audio source	IFR 1200S
6.	Modulation analyzer	IFR 1200S
7.	Plotter	HP 7475A
8.	RF power meter	HP 436A
9.	Spectrum analyzer	HP 8590A
10.	Climate chamber	Tenney Jr.
11.	Digital temperature controller	Watlow 942
12.	RF coaxial attenuator	JFW 50FH-030-50
13.	Audio analyzer	HP 8920
14.	RF Test Receiver	IFR 1000A
15.	RF Signal Generator	IFR 1200S
16.	RF Peak Detector	JFW 50D-003-B
17.	RF Combiner	JFW 50PD-001

INSTRUMENT SPECIALTIES COMPANY, INC.
World Compliance Center

Test Equipment Used

A complete list of test equipment used for each test can be found in their perspective test procedure. The equipment absolute performance calibration, of the equipment requiring calibration, is performed on an as needed basis in accordance with MIL-STD-45662. However, calibration periods do not exceed one (1) year. The test equipment is capable of making measurements within tolerances of at least +/-2dB amplitude and +/-2% frequency deviation. Equipment certifications showing traceability to NIST (National institute of Standards and Technology) are maintained on file at Instrument Specialties Corporate offices in Delaware Water Gap, PA or Placentia CA. All equipment is checked and verified for proper operation before and after each series of tests.

Test Instrument	*Manufacturer*	*Model No.*	*Serial No.*	*Freq. or Range*	*Cal. Due Date*
EMI Spectrum Analyzer	Hewlett Packard	8566B	2747A05747	100 Hz – 22 GHz	04/01/99
Quasi-Peak Adapter	Hewlett Packard	85650A	2521A00650	10 KHz – 1 GHz	04/01/99
RF Preamplifier	Hewlett Packard	8449B	3008A00357	1 GHz – 26 GHz	10/08/98
Double Ridged Horn Antenna	EMCO	3115	9511-4575	1 GHz – 18 GHz	12/11/98
RF Coaxial Cable	Times Microwave	LMR-600	030	20 MHz – 10 GHz	12/05/98
DC Power Supply	Hewlett Packard	6012A	2228A01339	0 – 60 VDC	10/30/98

Test Facility

The open area test site and measurement facility used to collect the test data is located at the Instrument Specialties Co., Inc. test facility in Placentia, CA. This site has been fully described in a report submitted to the FCC and accepted in a letter dated 5, February 1997 (31040/SIT 1300F2). The test facility is also recognized and accredited from the following accreditation organizations.

ISO 9001 (SGS ICS)	Registration Number: US94/0022 MIL-I-45208A, MIL-STD-45662A	Dated: 02/07/1994
NVLAP (NIST)	NVLAP Lab Code: 200119-0 FCC, CISPR	Dated: 12/31/1996
AUSTEL (NATA)	Listing Test House: A97/TH/014 AS / NZS 3548	Dated: 03/27/1997
I²T (Interference Tech. International)	Certificate Number: 7619 CE Mark for European Country	Dated: 03/11/1997
Acemark (Acemark Europe)	Laboratory Number: 0007 CE Mark for European Country	Dated: 03/21/1997
VCCI (Voluntary Control Council)	Registration Number: C-574-6, R-561 VCCI for Japan	Dated: 07/04/1997