

FCC Part 15, Subpart B, Class B, Radiated Emissions Test Method (Home Cradle)

1. Each satellite radio receiver was tested at Florida Atlantic University (FAU) three-meter indoor test site. Test firm FCC registration number is 447616.
2. All radiated emissions test data was obtained by test personnel at FAU.
3. Testing consisted of determining the maximum emissions by placing the test sample three meters away from the measuring antenna. With the spectrum analyzer in max hold, the antenna placed in a vertical polarity was raised and lowered from 1 meter to 4 meters until the maximum emission was determined.
4. After the antenna was raised and lowered the turntable was rotated 360°. The spectrum analyzer set to max hold until the maximum emission was determined. The data was recorded utilizing both data points and graphical plots for each configuration.
5. Steps 3 and 4 were repeated with the antenna in horizontal polarity.
6. The RBW and VBW of the spectrum analyzer were set to 120 kHz and 300 kHz respectively. A peak detector was utilized
7. Graphical Plots indicate the maximum emission. The FCC Part 15, Subpart B, Class B, test limit line was adjusted utilizing the correction factors for each operating frequency and mode of testing. There were four (4) plots; one plot displayed the emissions from 30 MHz and 200 MHz, one plot displayed 200 MHz -1000 MHz, one set in vertical polarity and one set in horizontal polarity.

Test Results

No emissions which exceeded the specified limits were observed and the EUT was found to comply with the requirements specified for this method.

See the following four (4) data sheets for a full presentation of the results obtained.



Retlif Testing Laboratories

Test Results No. R-11574-1

15.109(a), Radiated Emissions,
Home Cradle Test Data

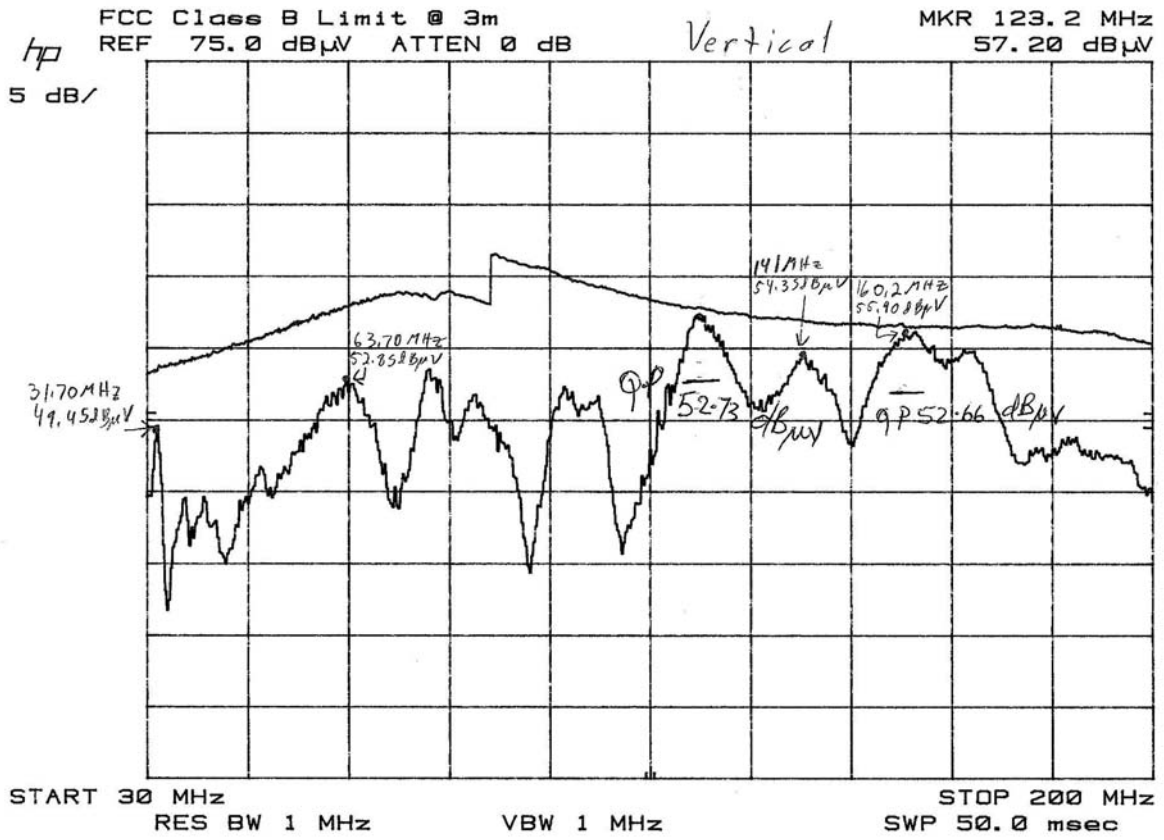


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Test Results No. R-11574-1

D-25

14 Aug 06

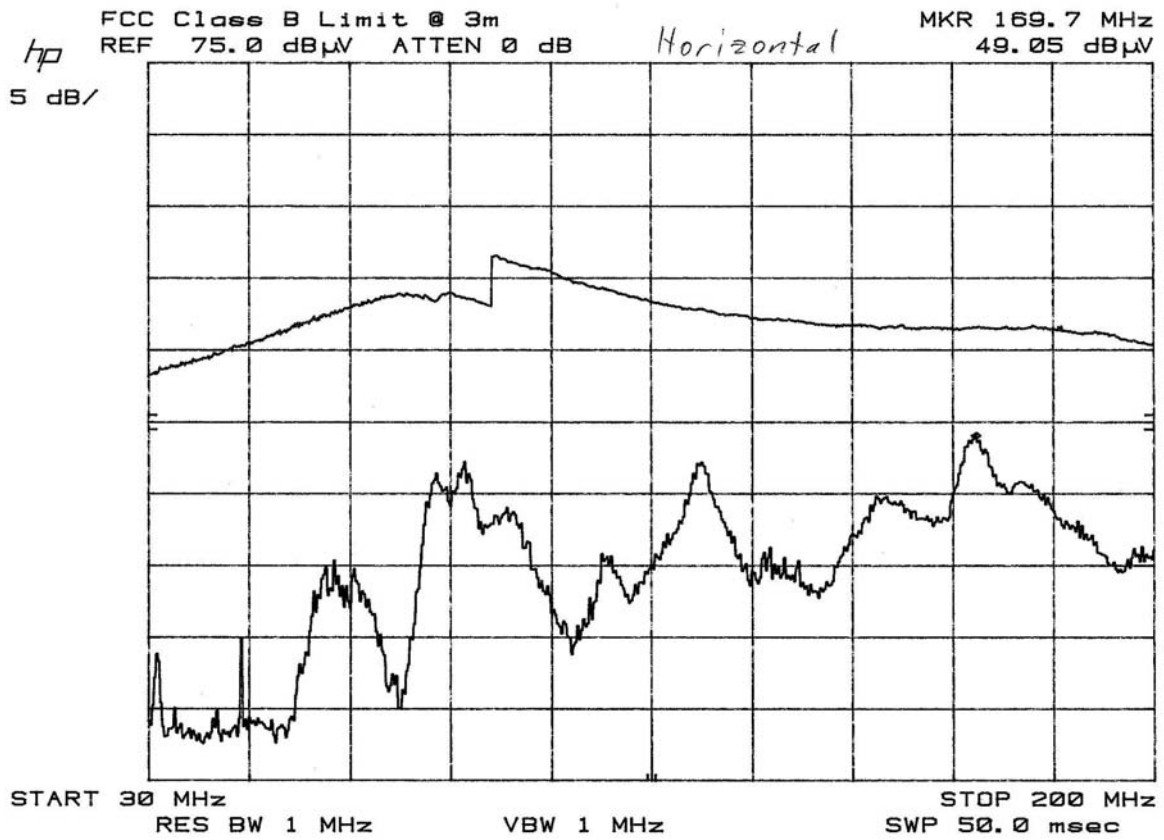


Retlif Testing Laboratories

Test Results No. R-11574-1

D-26

14 Aug 06

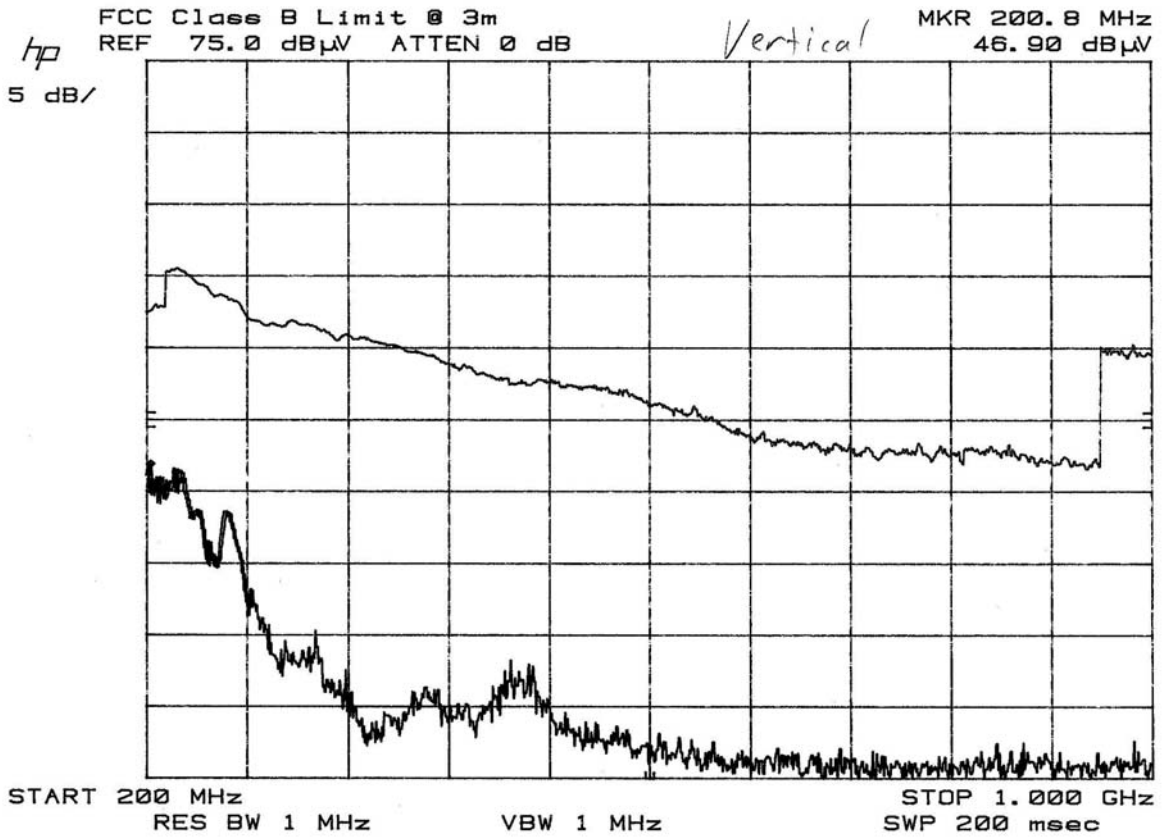


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Test Results No. R-11574-1

D-27

14 Aug 06

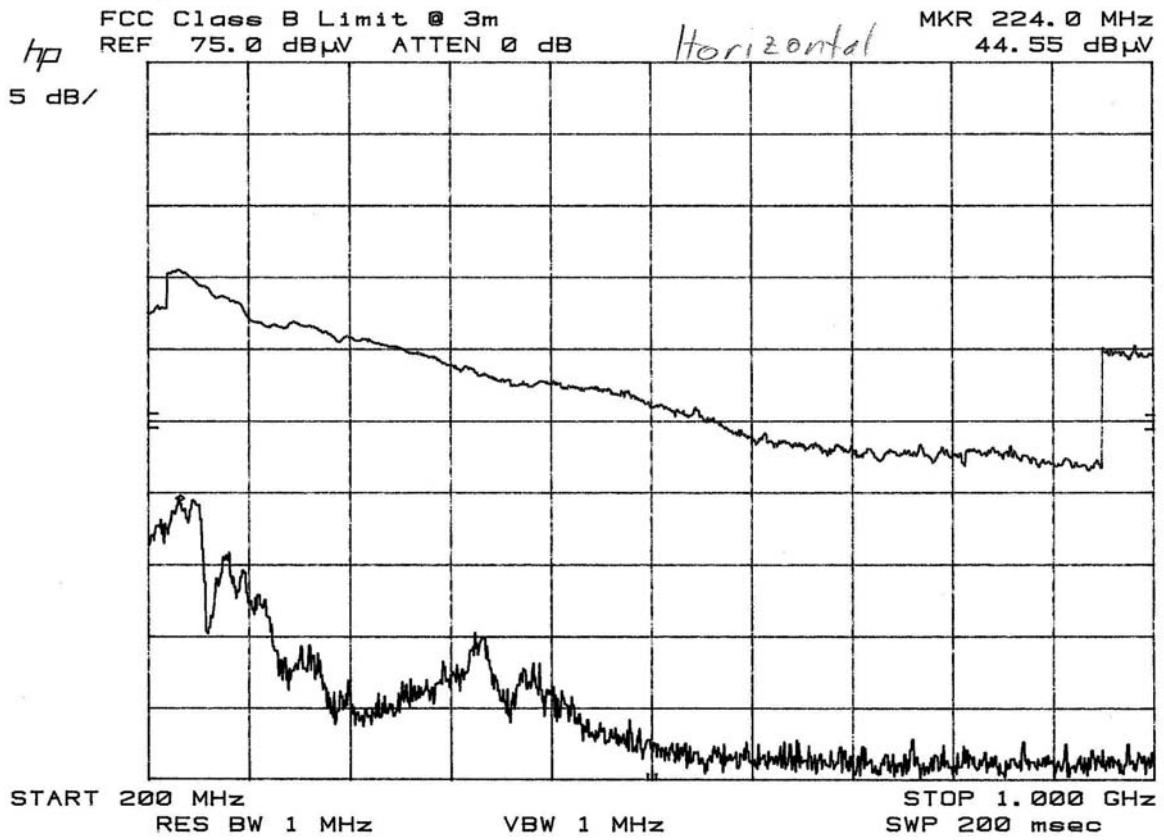


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Test Results No. R-11574-1

D-28

14 Aug 06



Retlif Testing Laboratories

Test Results No. R-11574-1

FCC Part 15, Subpart B, Class B, Radiated Emissions Test Method (FM Direct)

1. Each satellite radio receiver was tested at Florida Atlantic University (FAU) three-meter indoor test site. Test firm FCC registration number is 447616.
2. All radiated emissions test data was obtained by test personnel at FAU.
3. Testing consisted of determining the maximum emissions by placing the test sample three meters away from the measuring antenna. With the spectrum analyzer in max hold, the antenna placed in a vertical polarity was raised and lowered from 1 meter to 4 meters until the maximum emission was determined.
4. After the antenna was raised and lowered the turntable was rotated 360°. The spectrum analyzer set to max hold until the maximum emission was determined. The data was recorded utilizing both data points and graphical plots for each configuration.
5. Steps 3 and 4 were repeated with the antenna in horizontal polarity.
6. The RBW and VBW of the spectrum analyzer were set to 120 kHz and 300 kHz respectively. A peak detector was utilized
7. Graphical Plots indicate the maximum emission. The FCC Part 15, Subpart B, Class B, test limit line was adjusted utilizing the correction factors for each operating frequency and mode of testing. There were four (4) plots; one plot displayed the emissions from 30 MHz and 200 MHz, one plot displayed 200 MHz -1000 MHz, one set in vertical polarity and one set in horizontal polarity.

Test Results

No emissions which exceeded the specified limits were observed and the EUT was found to comply with the requirements specified for this method.

See the following twelve (12) data sheets for a full presentation of the results obtained.



Retlif Testing Laboratories

Test Results No. R-11574-1

15.109(a), Radiated Emissions,
FM Direct Test Data

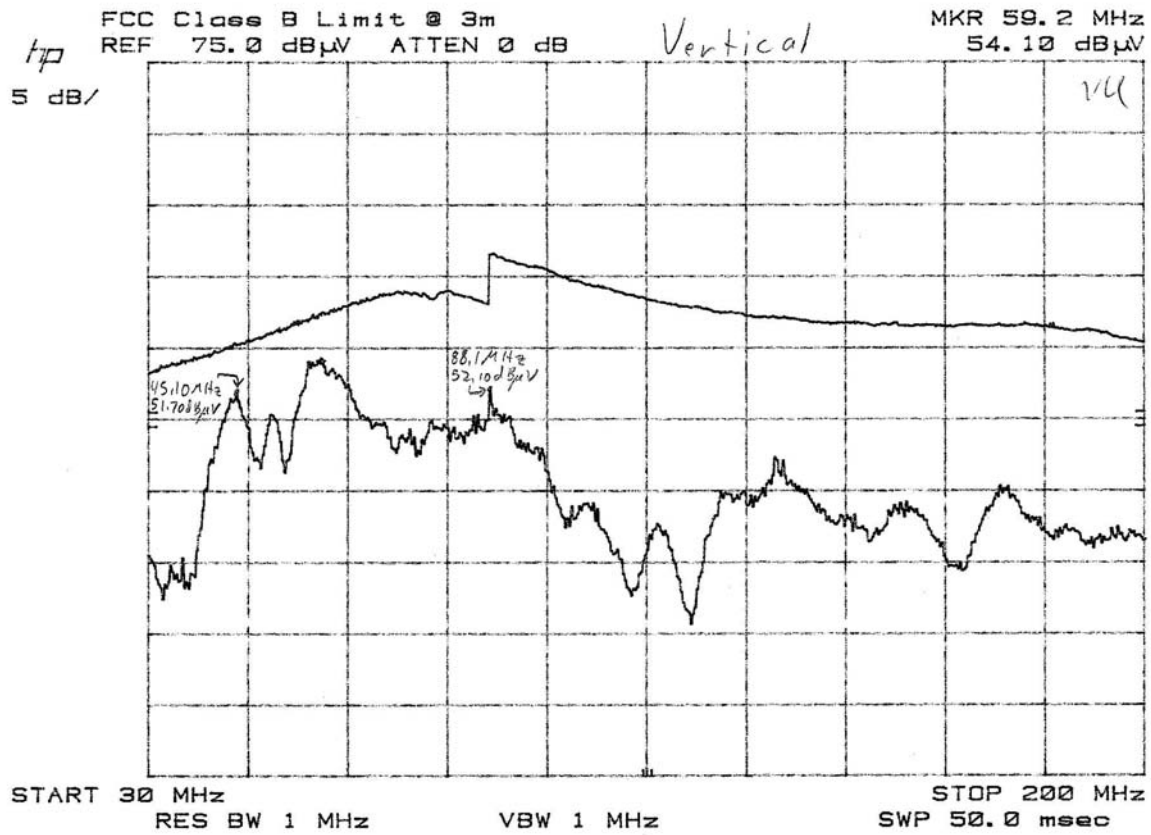


Retlif Testing Laboratories

Test Results No. R-11574-1

D-29

17 Aug 06

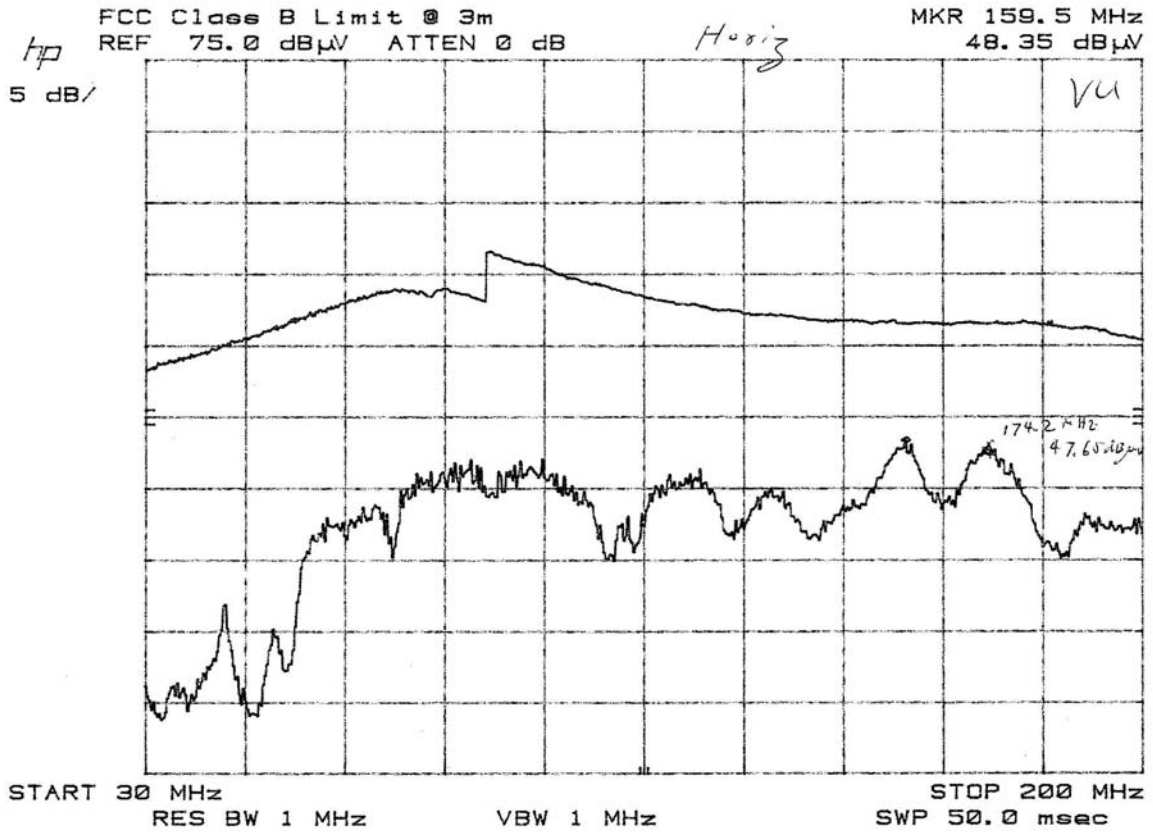


Retlif Testing Laboratories

Test Results No. R-11574-1

D-30

17 Aug 06

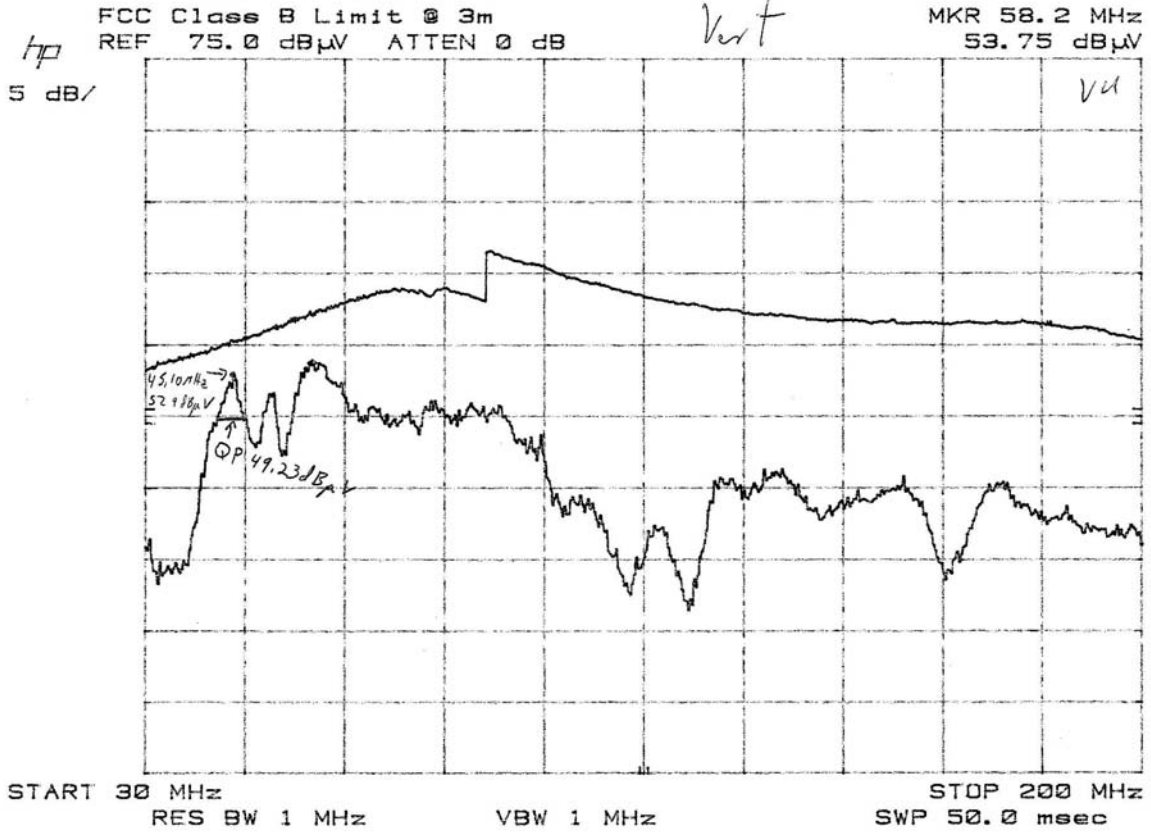


Retlif Testing Laboratories

Test Results No. R-11574-1

D-31

17 Aug 06

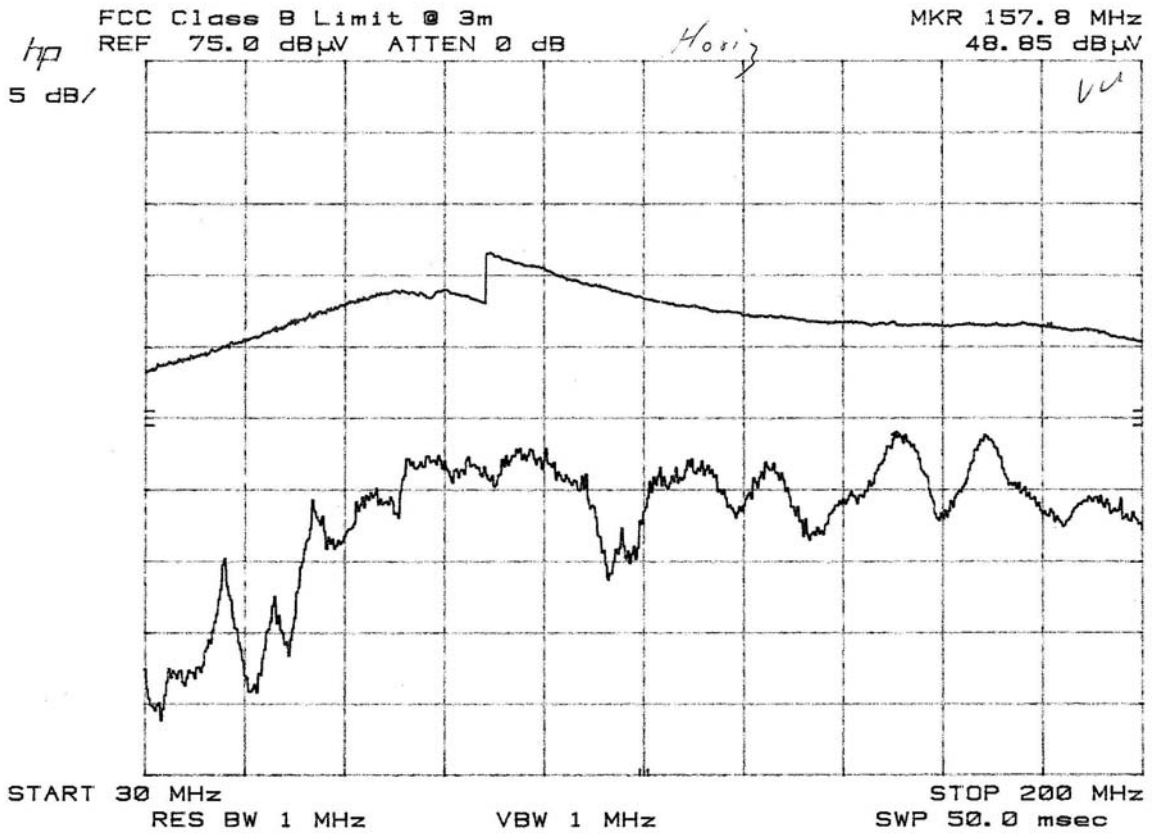


Retlif Testing Laboratories

Test Results No. R-11574-1

D-32

17 Aug 06

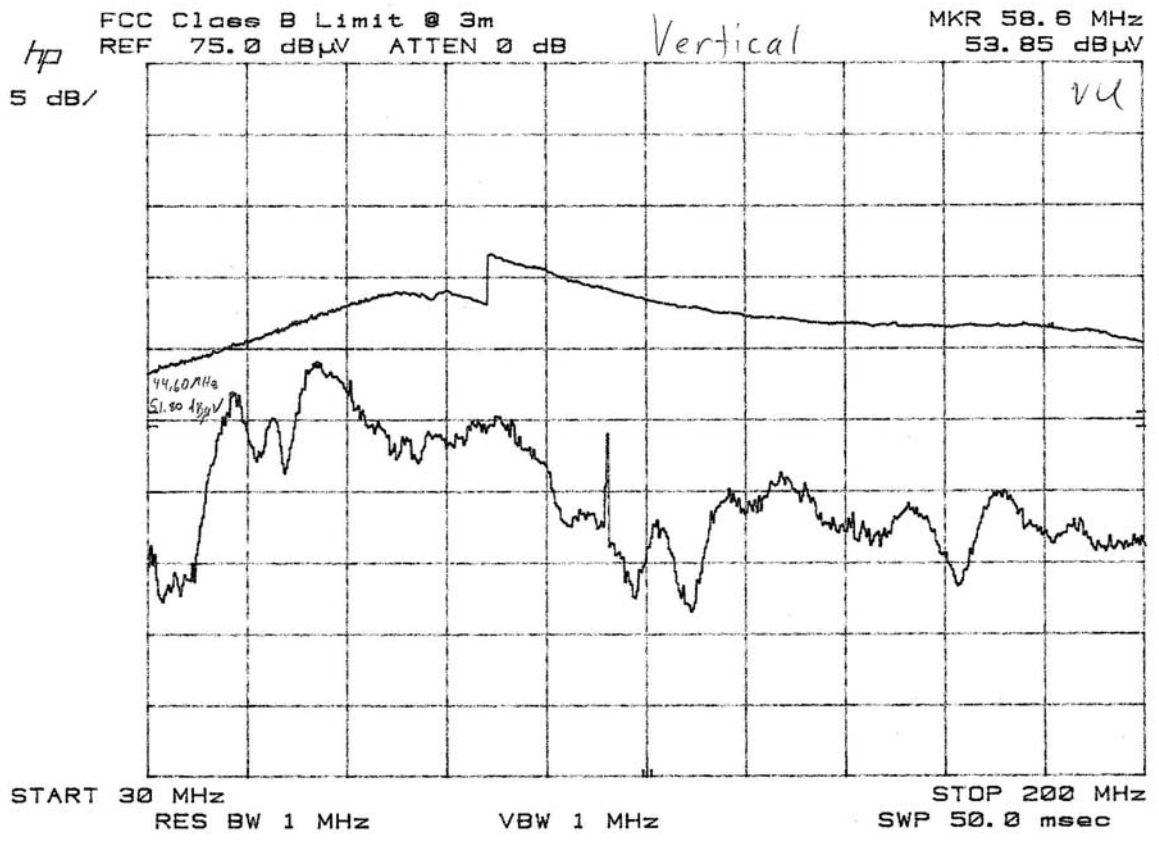


Retlif Testing Laboratories

Test Results No. R-11574-1

D-33

17 Aug 06

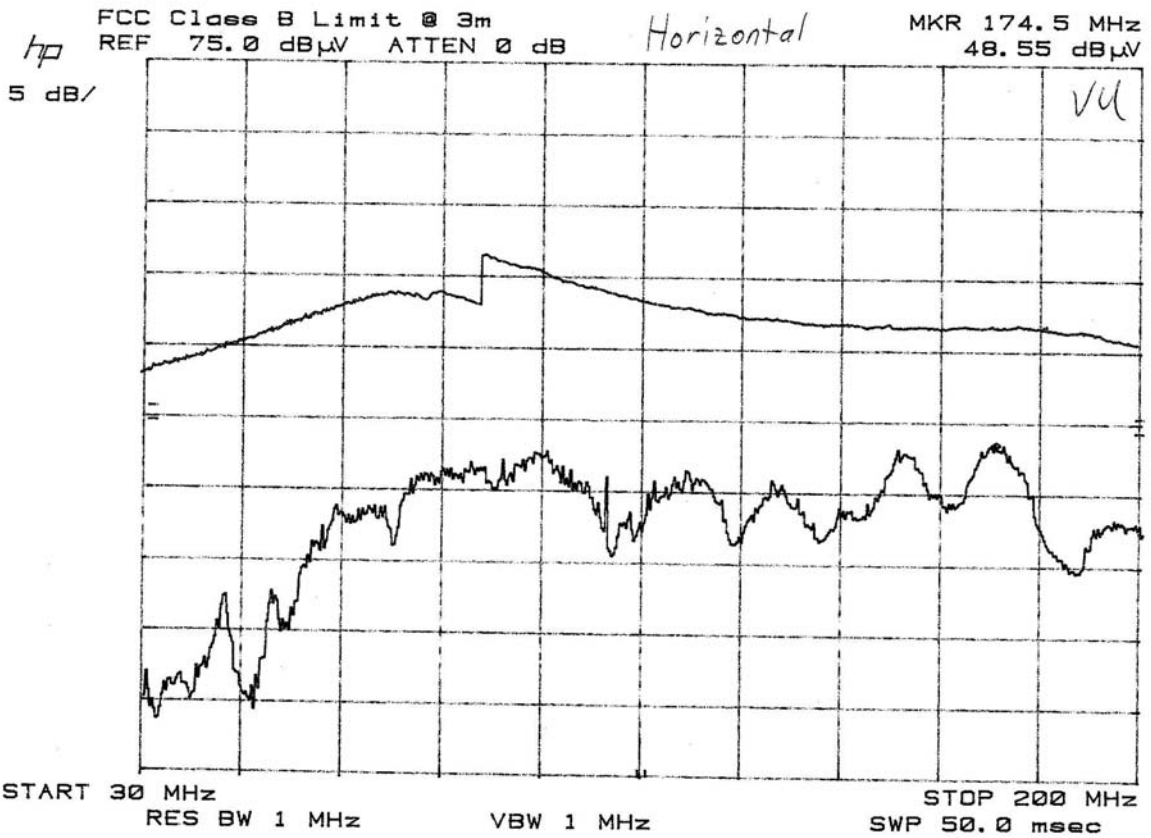


Retlif Testing Laboratories

Test Results No. R-11574-1

D-34

17 Aug 06

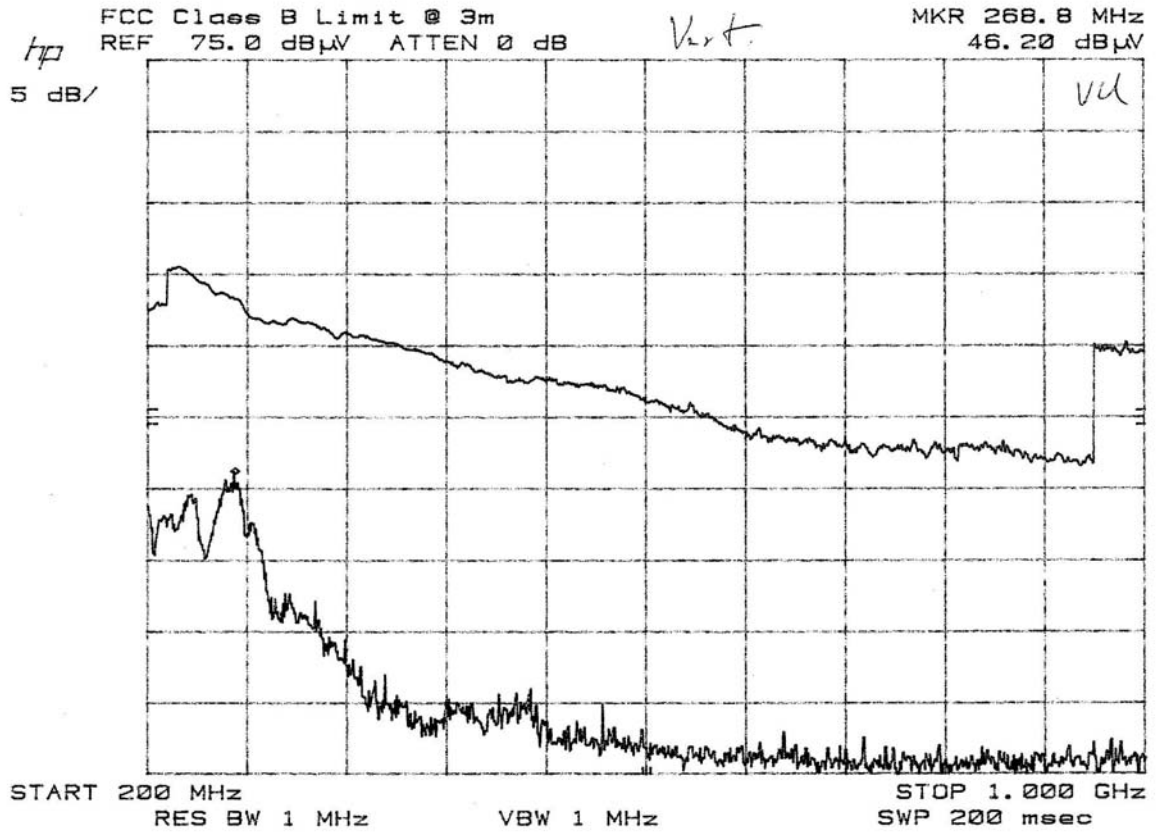


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Test Results No. R-11574-1

D-35

17 Aug 06

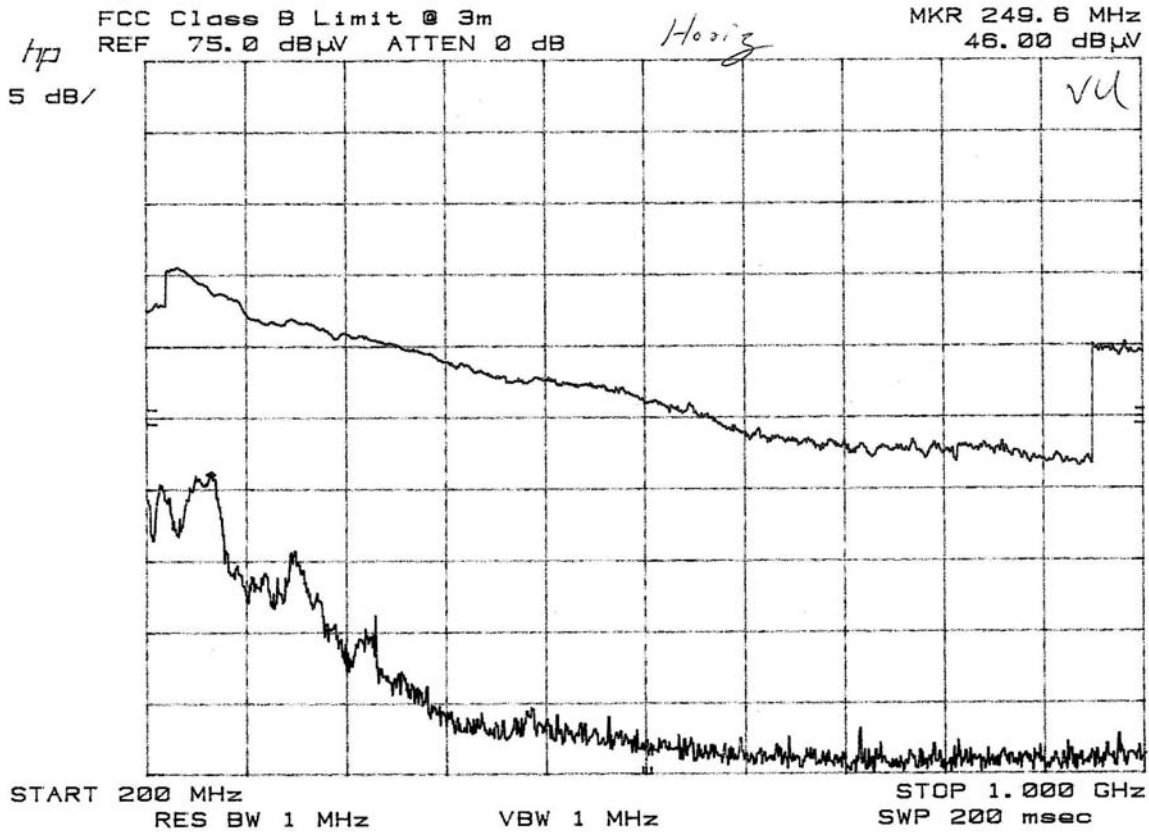


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Test Results No. R-11574-1

D-36

17 Aug 06



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Test Results No. R-11574-1

D-37

17 Aug 06

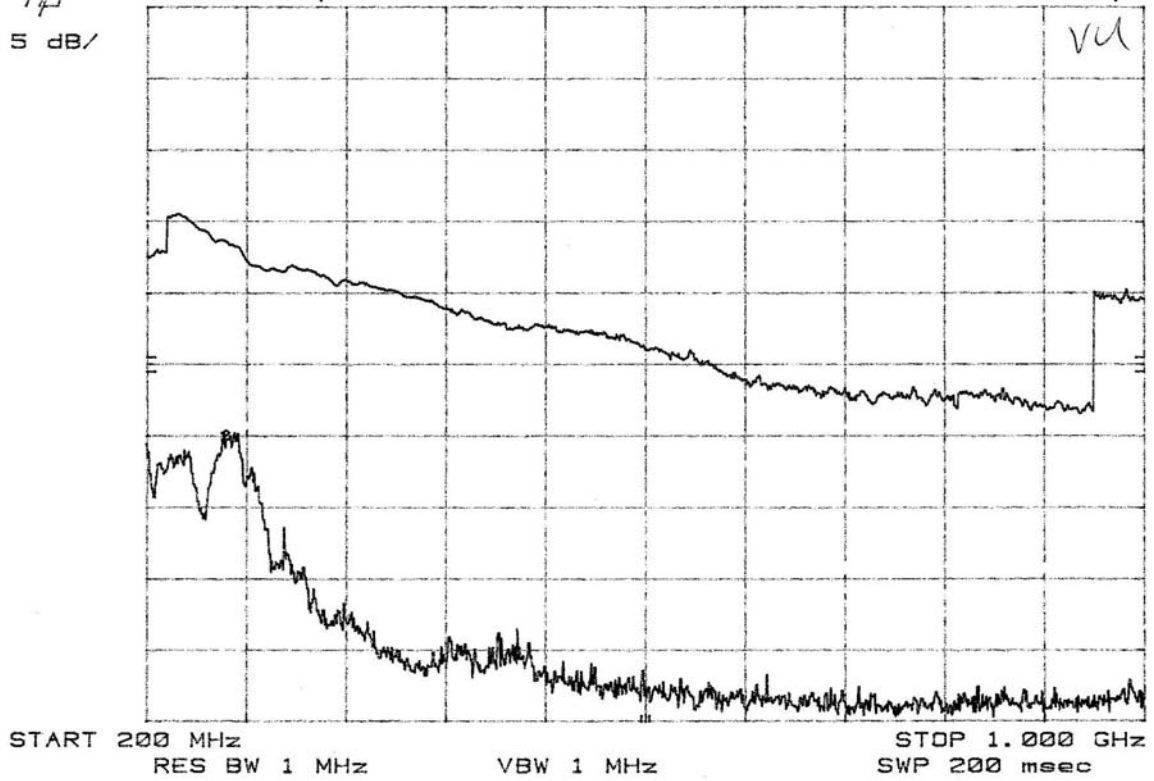
hp
5 dB/

FCC Class B Limit @ 3m
REF 75.0 dBμV ATTN 0 dB

Vert.

MKR 262.4 MHz
45.20 dBμV

VU

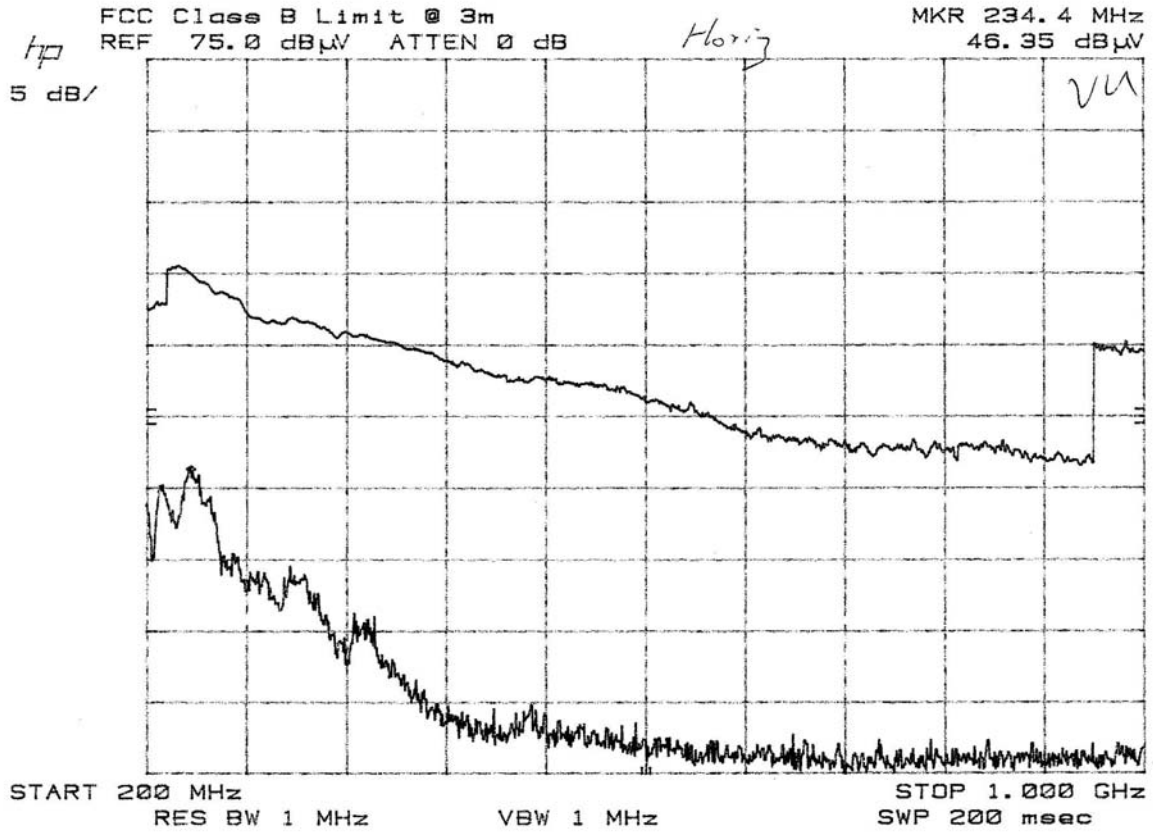


Retlif Testing Laboratories

Test Results No. R-11574-1

D-38

17 Aug 06

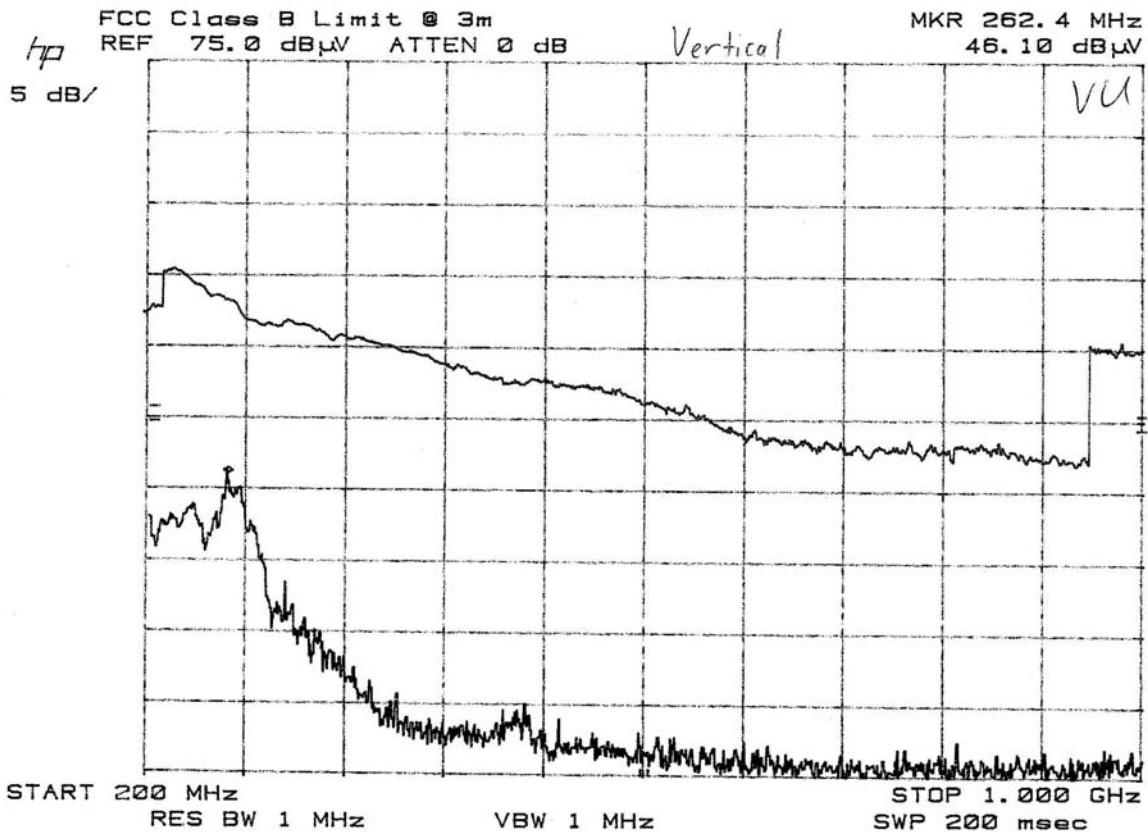


Retlif Testing Laboratories

Test Results No. R-11574-1

D-39

17 Aug 06

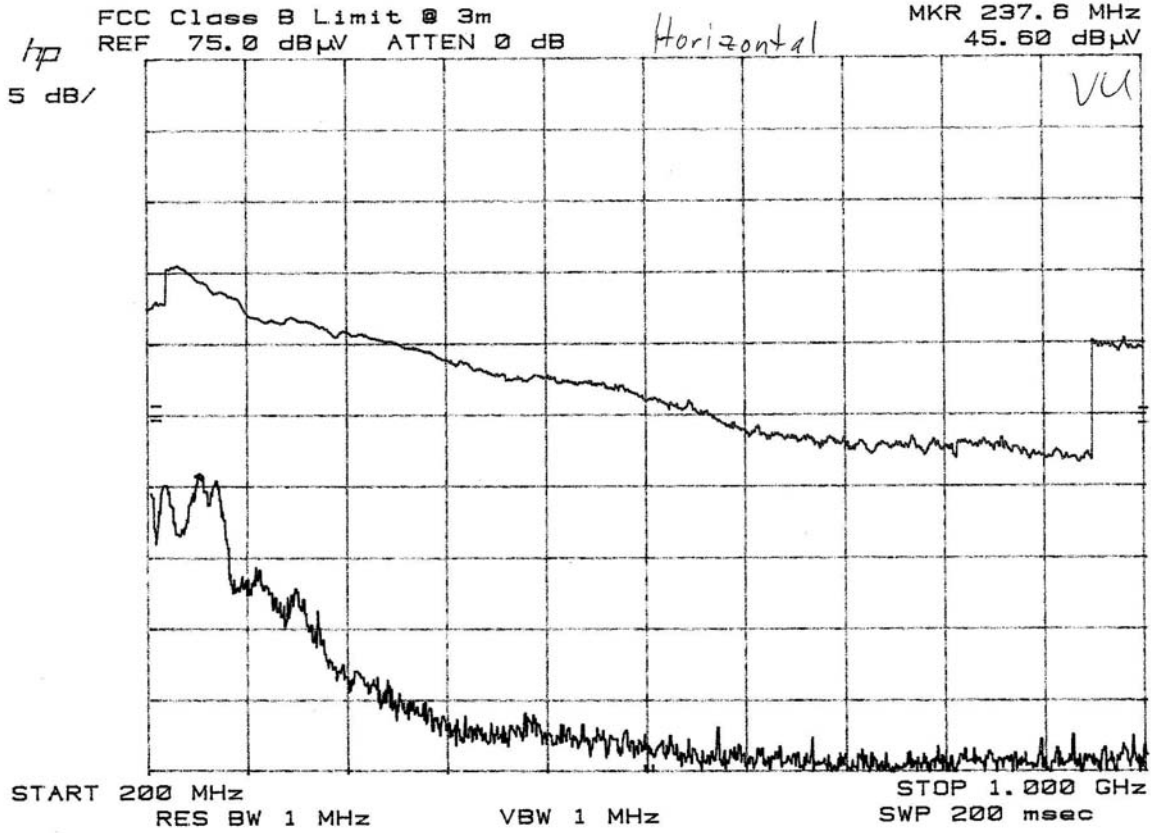


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Test Results No. R-11574-1

D-40

17 Aug 06



Retlif Testing Laboratories

Test Results No. R-11574-1

Sportscaster – Tabular Data

Sportscaster with FM Coupler Data Points					Correction Factors	Corrected Readings	Limit
Plot ID	Peak Frequency (MHz)	Peak Power (dBμV)	Rotation (°)	Height (m)	dB	Peak Power (dBμV)	dBuV/meter
D-1	88.10	60.45	81	100	-18.6	41.85	48
	60.30	53.65	31	100	-18.3	35.35	40
	180.30	50.25	4	100	-13.4	36.85	43.5
D-2	88.10	59.65	333	290	-18.6	41.05	48
	74.50	50.85	333	290	-19	31.85	40
	175.20	46.90	214	282	-13.5	33.40	43.5
D-3	96.90	60.40	3	100	-17.5	42.90	48
	59.10	52.90	278	100	-18.3	34.60	40
	176.90	50.60	180	100	-13.5	37.10	43.5
	31.00	46.25	77	100	-13.8	32.45	40
D-4	96.80	57.85	358	181	-19.2	38.65	48
	184.20	50.55	112	118	-12.7	37.85	43.5
D-5	107.90	58.30	168	101	-16.4	41.90	48
	59.40	53.25	260	101	-18.3	34.95	40
	43.90	51.30	135	101	-15	36.30	40
	171.10	51.70	44	101	-13.6	38.10	43.5
	30.00	49.85	120	101	-13.7	36.15	40
D-6	107.90	58.05	345	303	-16.4	41.65	48
	178.20	49.45	124	196	-13.4	36.05	43.5
D-7	200.00	45.55	3	182	-11.5	34.05	43.5
D-8	224.00	45.50	87	131	-13.8	31.70	46
D-9	200.00	46.45	75	100	-11.5	34.95	43.5
D-10	220.00	46.65	3	176	-13.8	32.85	43.5
D-11	200.80	44.00	181	108	-11.5	32.50	43.5
D-12	200.00	45.55	54	178	-11.5	34.05	43.5
D-13	58.90	53.80	292	100	-18.3	35.50	40
	30.00	51.00	292	100	-13.7	37.30	40
D-14	180.30	50.90	90	192	-13.4	37.50	43.5
D-15	58.60	54.80	329	115	-18.3	36.50	40
	30.00	52.20	192	100	-13.7	38.50	40
D-16	179.90	51.65	105	197	-13.4	38.25	43.5
D-17	58.20	55.20	358	100	-18.3	36.90	40
	30.50	52.95	358	100	-13.7	39.25	40
D-18	178.60	49.25	303	240	-13.4	35.85	43.5
	58.20	47.30	8	352	-18.3	29.00	40
D-19	208.80	46.75	277	100	-13.9	32.85	43.5
D-20	216.80	48.65	261	136	-13.8	34.85	46
D-21	208.80	45.85	358	101	-13.9	31.95	43.5
D-22	217.60	48.25	244	132	-13.8	34.45	46
D-23	200.00	44.15	223	101	-11.5	32.65	43.5
D-24	217.60	48.25	247	165	-13.8	34.45	43.5



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Test Results No. R-11574-1

Sportscaster – Tablular Data (Con't)

Sportscaster with FM Coupler Data Points					Correction Factors	Corrected Readings	Limit
Plot ID	Peak Frequency (MHz)	Peak Power (dBμV)	Rotation (°)	Height (m)	dB	Peak Power (dBμV)	dBuV/meter
D-25	123.20	57.20	76	101	-14.1	43.10	43.5
	123.20	52.73 Quasi-Peak	76	101	-14.1	38.63	43.5
	160.20	55.90	76	101	-13.8	42.10	43.5
	160.20	52.66 Quasi-Peak	76	101	-13.8	38.86	43.5
	141.00	54.35	180	101	-17	37.35	43.5
	63.70	52.85	76	101	-18.8	34.05	40
	31.70	49.45	288	101	-14.4	35.05	40
D-26	169.70	49.05	32	275	-13.4	35.65	43.5
D-27	200.80	46.90	255	101	-13.7	33.20	46
D-28	234.00	44.55	357	141	-13.7	30.85	46
D-29	45.10	51.70	90	100	-15	36.70	40
	59.20	54.10	288	100	-18.3	35.80	40
	88.10	52.10	120	100	-18.8	33.30	43.5
D-30	159.50	48.35	176	213	-13.8	34.55	43.5
	174.20	47.65	340	213	-13.5	34.15	43.5
D-31	45.10	52.90	72	101	-15	37.90	40
	58.20	53.75	72	101	-18.3	35.45	40
D-32	157.80	48.85	180	335	-13.9	34.95	43
D-33	44.60	51.80	300	100	-15	36.80	43.5
	58.60	53.85	120	100	-18.3	35.55	40
D-34	174.50	48.55	334	289	-13.5	35.05	43.5
D-35	268.80	46.20	155	100	-12	34.20	46
D-36	249.60	46.00	350	200	-13.7	32.30	46
D-37	262.40	45.20	160	100	-12	33.20	46
D-38	234.40	46.35	330	210	-13.7	32.65	46
D-39	262.40	46.10	164	100	-12	34.10	46
D-40	237.60	45.60	346	206	-13.7	31.90	46



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Test Results No. R-11574-1

EQUIPMENT LIST

FCC Part 15, Subpart C, Radiated Emissions

Type	Manufacturer	Model No.	Cal Date	Due Date
Spectrum Analyzer	Hewlett Packard	8566B	8-23-04	8-23-06
Spectrum analyzer display	Hewlett Packard		8-23-04	8-23-06
Quasi-peak adapter	Hewlett Packard	85650A	8-23-04	8-23-06
Biconnical Antenna	EMCO	3108	2-24-06	2-24-08
Log Periodic Antenna	EMCO	3146	2-24-06	2-24-08
Amplifier	Hewlett Packard	8447D	8-01-05	8-01-07
Rx System cable (RE tests)			8-04-05	8-04-07



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Test Results No. R-11574-1

FCC Part 15, Subpart B, Class B, Conducted Emissions Test Method (Home Cradle)

1. The satellite radio receiver was tested at Florida Atlantic University (FAU) three-meter indoor test site. Test firm FCC registration number is 447616.
2. Test personnel at FAU obtained all conducted emissions test data.
3. The spectrum analyzer was configured to display the frequency range of 0.15 to 30 MHz.
4. The spectrum analyzer was then configured to attain a max hold trace of the Hot lead in the 0.15 to 30 MHz frequency band utilizing a peak detector function.
5. The attained peak data was then compared to the average specified limit. If the obtained data was found to be in compliance with the average limit, then the test sample was found to comply.
6. If the obtained data did not comply with the average limit the scan was repeated utilizing a CISPR compliant receiver with a Quasi-Peak detector.
7. The attained Quasi-Peak data was then compared to the average specified limit. If the obtained data was found to be in compliance with the average limit, then the test sample was found to comply.
8. If the obtained data did not comply with the average limit step 6 was repeated utilizing an average detector.
9. The attained average data was then compared to the average specified limit. If the obtained data was found to be in compliance with the average limit, then the test sample was found to comply.
10. Steps 3 through 8 were repeated for each remaining lead of the EUT.

Test Results

No emissions which exceeded the specified limits were observed and the EUT was found to comply with the requirements specified for this method.

See the following one (1) data sheet for a full presentation of the results obtained.



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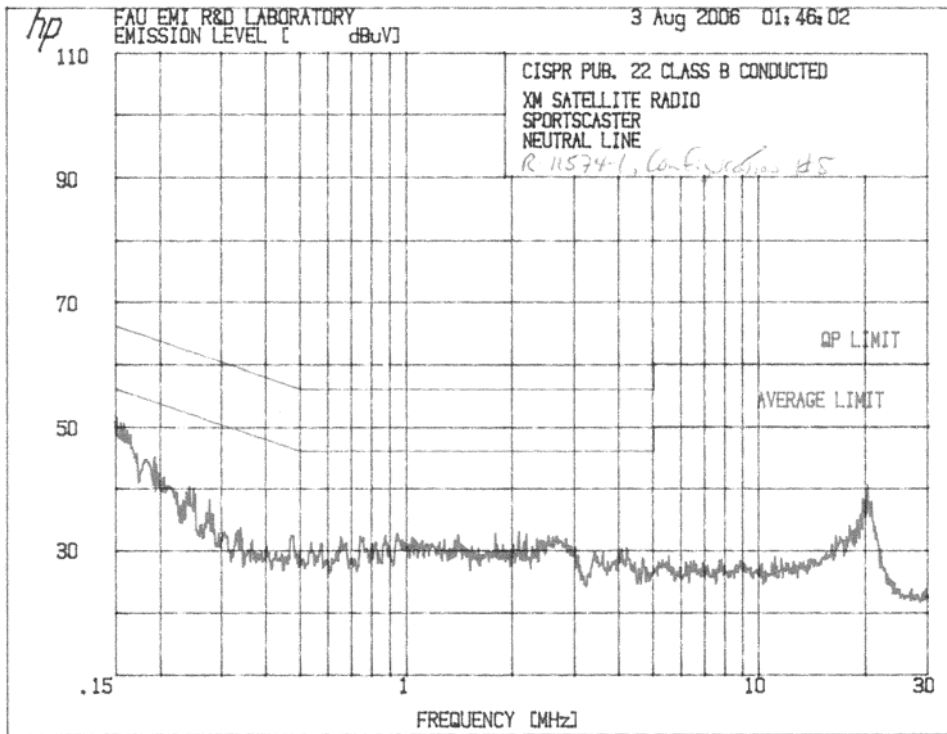
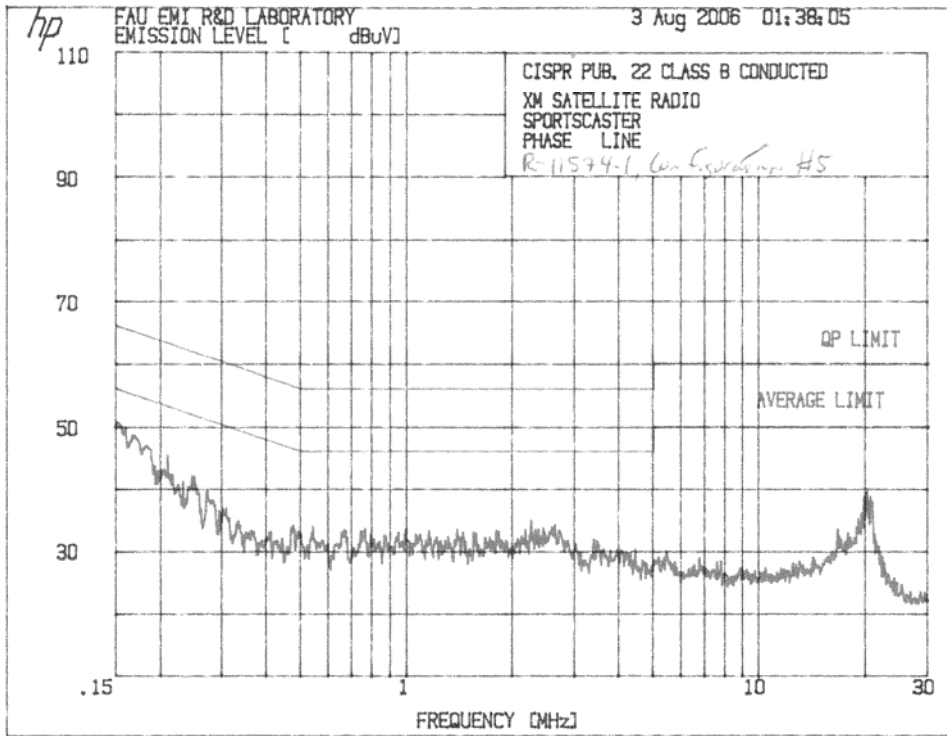
Test Results No. R-11574-1

15.107(a), Conducted Emissions
Home Cradle Test Data



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Test Results No. R-11574-1



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Test Results No. R-11574-1

EQUIPMENT LIST

FCC Part 15, Subpart B, Conducted Emissions

Type	Manufacturer	Model No.	Cal Date	Due Date
Spectrum Analyzer	Hewlett Packard	8566B	8-23-04	8-23-06
Spectrum analyzer display	Hewlett Packard		8-23-04	8-23-06
Quasi-peak adapter	Hewlett Packard	85650A	8-23-04	8-23-06
L.I.S.N	EMCO	3835/2R	3-10-06	3-10-07



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Test Results No. R-11574-1