

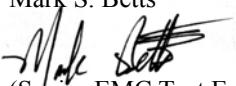
**FCC Compliance Report
For
Avante International Technology, Inc.
EVC308, VOTE-TRAKKER™**

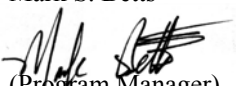
**FCC Compliance Report
For
Avante International Technology, Inc.
EVC308, VOTE-TRAKKER™**

Date : 3/28/02
MJO # : 40282-03
File : 40282-03.AIT
Revision # : None
Product : VOTE-TRAKKER™
Manufacturer : Avante International Technology, Inc.
P.O. # : 020179

This report is in conformity with EN 45001.
This report shall not be reproduced, except in full, without the written approval of NTS, Inc.
The test results relate only to the items tested.

Product : VOTE-TRAKKER™
Model : EVC308
Serial Number : N/A
Manufacturer : Avante International Technology, Inc.
Address : 70 Washington Road
Princeton Junction, NJ 08550
USA
Phone : 609 799 9388
Fax : 609 799 9308
Date Received : 3/21/02
Contact : John Wang
Test Laboratory : National Technical Systems
36 Gilbert Street South
Tinton Falls, NJ 07724
USA
Phone: 732 936 0800
Fax: 732 936 0700
E-mail: nts-nj@ntscorp.com

Prepared By : Mark S. Betts Date: 3/28/02

(Senior EMC Test Engineer)

Reviewed By : Mark S. Betts Date: 3/28/02

(Program Manager)

Approved By : Richard C. Gaynor Date: 3/28/02

(Facility Manager)

Table of Contents

1.	General Description:	5
2.	Classification and Environment:	5
3.	Test and Results Summary:	5
4.	Test Report Summary:	5
4.1.	Test Sample Description:	5
4.1.1.	Block Diagram:	5
4.1.2.	EUT Equipment List:	5
4.1.3.	EUT Cabling:	5
4.2.	Test Configuration:	6
4.2.1.	EUT Electrical Mode of Operation:	6
4.2.2.	Software/Firmware:	6
4.3.	Test Plan:	6
4.4.	Test Procedure:	7
4.5.	Test Results and Data:	7
4.5.1.	Radiated Emissions:	7
	Radiated Emissions Laboratory Report:	8
4.5.2.	Conducted Emissions:	14
	Conducted Emissions Laboratory Report:	15
5.	Test Equipment:	20
6.	References:	20
	Attachment 1, Test Data:	21
	Attachment 2, Photographs:	26

1. General Description:

The VOTE-TRAKKER™ is voting equipment.

2. Classification and Environment:

FCC Part 15, Class B Emissions standards are applied to the EVC308, VOTE-TRAKKER™.

3. Test and Results Summary:

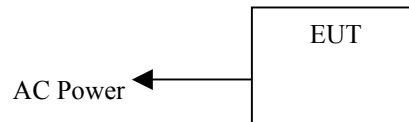
Tests	Standards	Results
Emissions, FCC Part 15, Class B		
Radiated Emissions	FCC Part 15, Class B	Pass
Conducted Emissions	FCC Part 15, Class B	Pass

4. Test Report Summary:

The VOTE-TRAKKER™ was tested to the specified standards and was found to comply with all of the criteria.

4.1. Test Sample Description:

The test sample is a laptop computer installed with a touch screen and includes a small printer installed in a plastic transport case.

4.1.1. Block Diagram:**4.1.2. EUT Equipment List:**

The table below displays what the EUT consists of during the tests.

Manufacturer	Make	Model	Serial Number
Avante International Technology, Inc.	VOTE-TRAKKER™	EVC308	N/A

4.1.3. EUT Cabling:

The table below displays the cable configuration of the EUT and accessories.

Termination Point 1	Termination Point 2	Cable Length	Cable Type	Part Number
AC Power	EUT AC Power In	4'	Standard AC	N/A

4.2. Test Configuration:**4.2.1. EUT Electrical Mode of Operation:**

The EUT was operated at 120 VAC/60 Hz Nominal.
The EUT was run in Normal Operation mode.

4.2.2. Software/Firmware:

Windows NT

4.3. Test Plan:

Test Standards	Test Requirements	Performance
EMISSIONS	FCC Part 15, Class B	
Radiated Emissions, Enclosure FCC Part 15, Class B	30-88 MHz, 40 dB μ V/m 88-216 MHz, 43.5 dB μ V/m 216-960 MHz, 46 dB μ V/m above 960 MHz, 53.9 dB μ V/m	N/A
Conducted Emissions, AC Mains FCC Part 15, Class B	.45-30 MHz, 47.9 dB μ V	N/A

4.4. Test Procedure:

The EUT's testing was performed in accordance with approved test procedures specified in the applicable standards. All test procedures can be found with their appropriate tests.

4.5. Test Results and Data:**4.5.1. Radiated Emissions:**

Radiated Emissions testing was conducted as defined in FCC Part 15, Class B.

The receiver was set to use the Peak detector for the initial scan, because this gives the greatest sensitivity to signals for the display. Any signals emanating from the EUT would be measured using the Quasi-Peak detector. Data was taken with the antenna in the Horizontal position and then in the Vertical position, at a distance of 3 meters in an anechoic chamber. The height of the antenna was varied from 1 to 4 meters and the EUT was rotated 360° to determine worst-case emissions.

Conclusion: **Testing showed no levels that exceeded the required specification limits.**

Radiated Emissions Laboratory Report

MJO #:	40282-03	Applied Standard:	FCC Part 15, Class B
Manufacturer Name:	Avante International Technology, Inc.	Date of Test:	3/21/02
Product Name:	VOTE-TRAKKER™	Tester:	Kent Hoffman
Model Number:	EVC308	Test Facility:	Anechoic Chamber
Serial Number:	N/A	Temperature:	20°C
Performance Criteria:	N/A	Relative Humidity:	49%
EUT Mode:	Normal Operation	EUT Power:	120 VAC/60 Hz

Specification Limits:

Frequency Band (MHz)	Class B, 3 meters dB(μV/m)
30-88	40
88-216	43.5
216-960	46
Above 960	53.9

Radiated Emissions Test Results
Distance 3 Meters

Note: All levels include antenna factors and cable losses.

Frequency (MHz)	Antenna (V/H)	Antenna Height (m)	EUT Position	Measured Level dB(μV/m) Quasi-Peak	Limit Level dB(μV/m)	Δ (dB)	Results (Pass/Fail)
30.000	H	1.0	180.00	36.6	40.0	-3.4	Pass
32.156	H	1.0	180.00	36.0	40.0	-4.0	Pass
33.233	H	1.0	180.00	35.6	40.0	-4.5	Pass
42.933	H	1.0	180.00	25.2	40.0	-14.8	Pass
51.556	H	1.0	180.00	23.0	40.0	-17.0	Pass
58.022	H	1.0	180.00	25.9	40.0	-14.2	Pass
69.878	H	1.0	180.00	22.3	40.0	-17.7	Pass
81.733	H	1.0	180.00	25.2	40.0	-14.8	Pass
100.056	H	1.0	180.00	25.5	43.5	-18.0	Pass
122.689	H	1.0	180.00	33.3	43.5	-10.2	Pass
130.233	H	1.0	180.00	30.4	43.5	-13.1	Pass
136.700	H	1.0	180.00	26.6	43.5	-16.9	Pass
149.633	H	1.0	180.00	25.0	43.5	-18.5	Pass
153.944	H	1.0	180.00	25.7	43.5	-17.8	Pass
176.578	H	1.0	180.00	30.9	43.5	-12.6	Pass
217.533	H	1.0	180.00	28.6	46.0	-17.5	Pass
252.022	H	1.0	180.00	28.6	46.0	-17.4	Pass
260.644	H	1.0	180.00	31.9	46.0	-14.1	Pass
272.500	H	1.0	180.00	36.4	46.0	-9.6	Pass
285.433	H	1.0	180.00	36.7	46.0	-9.3	Pass
299.444	H	1.0	180.00	36.7	46.0	-9.3	Pass
326.389	H	1.0	180.00	31.6	46.0	-14.4	Pass
340.400	H	1.0	180.00	32.8	46.0	-13.2	Pass
353.333	H	1.0	180.00	36.3	46.0	-9.7	Pass

Frequency (MHz)	Antenna (V/H)	Antenna Height (m)	EUT Position	Measured Level dB(μ V/m) Quasi-Peak	Limit Level dB(μ V/m)	Δ (dB)	Results (Pass/Fail)
366.267	H	1.0	180.00	31.8	46.0	-14.2	Pass
401.833	H	1.0	180.00	31.2	46.0	-14.8	Pass
421.233	H	1.0	180.00	32.1	46.0	-13.9	Pass
432.011	H	1.0	180.00	31.5	46.0	-14.5	Pass
455.722	H	1.0	180.00	33.9	46.0	-12.1	Pass
499.911	H	1.0	180.00	36.4	46.0	-9.6	Pass
927.789	H	1.0	180.00	38.3	46.0	-7.7	Pass
1000.000	H	1.0	180.00	41.1	53.9	-12.9	Pass
1031.111	H	1.0	180.00	42.4	53.9	-11.5	Pass
1062.222	H	1.0	180.00	43.3	53.9	-10.6	Pass
1102.222	H	1.0	180.00	41.7	53.9	-12.2	Pass
1168.889	H	1.0	180.00	45.7	53.9	-8.2	Pass
1226.667	H	1.0	180.00	42.8	53.9	-11.1	Pass
1297.778	H	1.0	180.00	47.6	53.9	-6.3	Pass
1391.111	H	1.0	180.00	43.3	53.9	-10.6	Pass
1462.222	H	1.0	180.00	44.3	53.9	-9.6	Pass
1493.333	H	1.0	180.00	45.5	53.9	-8.4	Pass
1626.667	H	1.0	180.00	44.9	53.9	-9.0	Pass
2275.556	H	1.0	180.00	48.4	53.9	-5.6	Pass
3560.000	H	1.0	180.00	51.1	53.9	-2.8	Pass
30.000	V	1.0	0.00	30.4	40.0	-9.6	Pass
42.933	V	1.0	0.00	28.4	40.0	-11.6	Pass
48.322	V	1.0	0.00	25.9	40.0	-14.1	Pass
58.022	V	1.0	0.00	34.3	40.0	-5.7	Pass
72.033	V	1.0	0.00	28.8	40.0	-11.2	Pass
81.733	V	1.0	315.00	35.5	40.0	-4.5	Pass

Frequency (MHz)	Antenna (V/H)	Antenna Height (m)	EUT Position	Measured Level dB(μ V/m) Quasi-Peak	Limit Level dB(μ V/m)	Δ (dB)	Results (Pass/Fail)
84.967	V	1.0	315.00	27.8	40.0	-12.3	Pass
100.056	V	1.0	315.00	32.2	43.5	-11.3	Pass
122.689	V	1.0	315.00	32.4	43.5	-11.1	Pass
135.622	V	1.0	315.00	31.0	43.5	-12.5	Pass
149.633	V	1.0	315.00	30.8	43.5	-12.8	Pass
171.189	V	1.0	315.00	34.4	43.5	-9.2	Pass
190.589	V	1.0	315.00	36.4	43.5	-7.2	Pass
200.289	V	1.0	315.00	29.0	43.5	-14.5	Pass
217.533	V	1.0	315.00	30.5	46.0	-15.5	Pass
260.644	V	1.0	315.00	35.7	46.0	-10.3	Pass
262.800	V	1.0	315.00	36.4	46.0	-9.6	Pass
272.500	V	1.0	315.00	39.0	46.0	-7.0	Pass
285.433	V	1.0	315.00	38.0	46.0	-8.0	Pass
290.822	V	1.0	315.00	33.1	46.0	-13.0	Pass
299.444	V	1.0	315.00	38.7	46.0	-7.3	Pass
326.389	V	1.0	315.00	35.4	46.0	-10.6	Pass
340.400	V	1.0	315.00	38.5	46.0	-7.5	Pass
353.333	V	1.0	315.00	36.6	46.0	-9.4	Pass
367.344	V	1.0	315.00	34.8	46.0	-11.2	Pass
399.678	V	1.0	315.00	33.4	46.0	-12.6	Pass
408.300	V	1.0	315.00	35.9	46.0	-10.1	Pass
421.233	V	1.0	315.00	37.2	46.0	-8.8	Pass
432.011	V	1.0	315.00	35.4	46.0	-10.7	Pass
498.833	V	1.0	315.00	36.3	46.0	-9.7	Pass
699.300	V	1.0	315.00	37.4	46.0	-8.6	Pass
1004.444	V	1.0	315.00	43.3	53.9	-10.6	Pass

Frequency (MHz)	Antenna (V/H)	Antenna Height (m)	EUT Position	Measured Level dB(μ V/m) Quasi-Peak	Limit Level dB(μ V/m)	Δ (dB)	Results (Pass/Fail)
1026.667	V	1.0	315.00	43.9	53.9	-10.0	Pass
1044.444	V	1.0	315.00	48.9	53.9	-5.0	Pass
1062.222	V	1.0	315.00	45.6	53.9	-8.3	Pass
1080.000	V	1.0	315.00	47.3	53.9	-6.6	Pass
1093.333	V	1.0	315.00	44.2	53.9	-9.7	Pass
1115.556	V	1.0	315.00	41.9	53.9	-12.0	Pass
1186.667	V	1.0	315.00	44.0	53.9	-10.0	Pass
1208.889	V	1.0	315.00	47.3	53.9	-6.6	Pass
1222.222	V	1.0	315.00	46.1	53.9	-7.8	Pass
1297.778	V	1.0	315.00	48.3	53.9	-5.6	Pass
1395.556	V	1.0	315.00	46.6	53.9	-7.3	Pass
1493.333	V	1.0	315.00	44.9	53.9	-9.0	Pass
1871.111	V	1.0	315.00	46.0	53.9	-7.9	Pass
2048.889	V	1.0	315.00	46.8	53.9	-7.1	Pass
2155.556	V	1.0	315.00	48.0	53.9	-5.9	Pass
2275.556	V	1.0	315.00	47.3	53.9	-6.6	Pass
2355.556	V	1.0	315.00	47.4	53.9	-6.5	Pass
2671.111	V	1.0	315.00	48.4	53.9	-5.5	Pass
3048.889	V	1.0	315.00	48.8	53.9	-5.1	Pass
3533.333	V	1.0	315.00	50.0	53.9	-3.9	Pass
3573.333	V	1.0	315.00	50.0	53.9	-3.9	Pass

Radiated Emissions Equipment List:

Property Number	Manufacturer	Make	Model	S/N	Cal. Date	Cal. Due
AN364	Emco	Antenna	3143	9607-1293	7/1/99	7/1/02
AN354	Electrometrics	Antenna	RGA60	6150	5/17/01	5/17/04
WA476A	Rohde & Schwarz	EMI Receiver Display	ESAI-D	842088/012	9/27/01	9/27/02
WA476	Rohde & Schwarz	EMI Receiver RF	ESBI-RF	14309	9/27/01	9/27/02

4.5.2. Conducted Emissions:

Conducted Emissions testing was conducted as defined in FCC Part 15, Class B. The receiver was set to use the Peak detector for the initial scan, because this gives the greatest sensitivity to signals for the display. Any signals emanating from the EUT would be measured using the Quasi-Peak detector. Data was taken on the line and neutral sides of the EUT mains through an LISN.

Conclusion: **Testing showed no levels that exceeded the required specification limits.**

Conducted Emissions Laboratory Report

MJO #:	40282-03	Applied Standard:	FCC Part 15, Class B
Manufacturer Name:	Avante International Technology, Inc.	Date of Test:	3/21/02
Product Name:	VOTE-TRAKKER™	Tester:	Kent Hoffman
Model Number:	EVC308	Test Facility:	Anechoic Chamber
Serial Number:	N/A	Temperature:	20°C
Performance Criteria:	N/A	Relative Humidity:	49%
EUT Mode:	Normal Operation	EUT Power:	120 VAC/60 Hz

Specification Limits:

Frequency Band (MHz)	Specification Limits Class B, dB(μV)
.45-1.705	47.9
1.705-30	47.9

Conducted Emissions Test Results:
Note: All levels include cable losses.

Frequency (MHz)	Mains (L/N)	Level QPK dB(μV)	Limit QPK dB(μV)	ΔQPK dB(μV)	Results (Pass/Fail)
0.614	L	31.23	47.90	-16.7	Pass
0.746	L	32.05	47.90	-15.9	Pass
0.811	L	32.83	47.90	-15.1	Pass
1.008	L	33.29	47.90	-14.6	Pass
1.074	L	32.20	47.90	-15.7	Pass
1.271	L	31.95	47.90	-16.0	Pass
1.435	L	33.47	47.90	-14.4	Pass
1.501	L	30.68	47.90	-17.2	Pass
1.698	L	33.65	47.90	-14.3	Pass
1.960	L	33.22	47.90	-14.7	Pass
2.125	L	33.70	47.90	-14.2	Pass
2.387	L	35.22	47.90	-12.7	Pass
2.650	L	36.32	47.90	-11.6	Pass
2.814	L	33.47	47.90	-14.4	Pass
2.880	L	34.89	47.90	-13.0	Pass
2.945	L	31.69	47.90	-16.2	Pass
3.011	L	34.74	47.90	-13.2	Pass
3.077	L	35.33	47.90	-12.6	Pass
3.208	L	34.79	47.90	-13.1	Pass
3.504	L	31.19	47.90	-16.7	Pass
3.569	L	30.58	47.90	-17.3	Pass
3.701	L	32.05	47.90	-15.9	Pass
3.963	L	31.85	47.90	-16.1	Pass
4.127	L	29.36	47.90	-18.5	Pass

Frequency (MHz)	Mains (L/N)	Level QPK dB(μ V)	Limit QPK dB(μ V)	Δ QPK dB(μ V)	Results (Pass/Fail)
4.193	L	30.96	47.90	-16.9	Pass
4.324	L	30.68	47.90	-17.2	Pass
4.456	L	31.39	47.90	-16.5	Pass
4.817	L	30.37	47.90	-17.5	Pass
4.883	L	30.55	47.90	-17.4	Pass
5.080	L	27.33	47.90	-20.6	Pass
6.327	L	26.21	47.90	-21.7	Pass
15.980	L	33.88	47.90	-14.0	Pass
16.177	L	33.27	47.90	-14.6	Pass
16.374	L	33.32	47.90	-14.6	Pass
16.571	L	35.58	47.90	-12.3	Pass
16.768	L	35.07	47.90	-12.8	Pass
16.998	L	30.60	47.90	-17.3	Pass
17.195	L	30.45	47.90	-17.5	Pass
27.078	L	25.80	47.90	-22.1	Pass
0.614	N	34.05	47.90	-13.9	Pass
0.746	N	31.36	47.90	-16.5	Pass
0.811	N	30.90	47.90	-17.0	Pass
1.008	N	30.60	47.90	-17.3	Pass
1.074	N	31.57	47.90	-16.3	Pass
1.271	N	31.36	47.90	-16.5	Pass
1.435	N	32.71	47.90	-15.2	Pass
1.501	N	30.81	47.90	-17.1	Pass
1.698	N	33.93	47.90	-14.0	Pass
1.960	N	33.32	47.90	-14.6	Pass
2.125	N	32.96	47.90	-14.9	Pass

Frequency (MHz)	Mains (L/N)	Level QPK dB(μ V)	Limit QPK dB(μ V)	Δ QPK dB(μ V)	Results (Pass/Fail)
2.387	N	32.61	47.90	-15.3	Pass
2.650	N	33.93	47.90	-14.0	Pass
2.814	N	34.03	47.90	-13.9	Pass
2.880	N	33.62	47.90	-14.3	Pass
2.945	N	31.44	47.90	-16.5	Pass
3.011	N	33.98	47.90	-13.9	Pass
3.077	N	33.83	47.90	-14.1	Pass
3.274	N	33.22	47.90	-14.7	Pass
3.504	N	30.27	47.90	-17.6	Pass
3.701	N	29.56	47.90	-18.3	Pass
4.127	N	30.27	47.90	-17.6	Pass
4.193	N	30.93	47.90	-17.0	Pass
4.259	N	28.82	47.90	-19.1	Pass
4.324	N	29.84	47.90	-18.1	Pass
4.390	N	30.86	47.90	-17.0	Pass
4.653	N	30.14	47.90	-17.8	Pass
4.817	N	29.74	47.90	-18.2	Pass
4.883	N	29.18	47.90	-18.7	Pass
15.980	N	32.28	47.90	-15.6	Pass
16.177	N	34.11	47.90	-13.8	Pass
16.407	N	37.51	47.90	-10.4	Pass
16.604	N	36.98	47.90	-10.9	Pass
16.801	N	30.68	47.90	-17.2	Pass
16.998	N	33.90	47.90	-14.0	Pass
22.087	N	24.25	47.90	-23.7	Pass

Conducted Emissions Equipment List:

Property Number	Manufacturer	Make	Model	S/N	Cal. Date	Cal. Due
WA477	Comtest	LISN	4401	66173	10/9/00	10/9/02
WA476A	Rohde & Schwarz	EMI Receiver Display	ESAI-D	842088/012	9/27/01	9/27/02
WA476	Rohde & Schwarz	EMI Receiver RF	ESBI-RF	14309	9/27/01	9/27/02

5. Test Equipment:

All test equipment used in the compiling of test data can be found in the test laboratory reports.

6. References:

40282-03.AIT	EMC Test Report for EUT
FCC Part 15, Class B	FCC part 15- Radio Frequency Devices

Attachment 1, Test Data

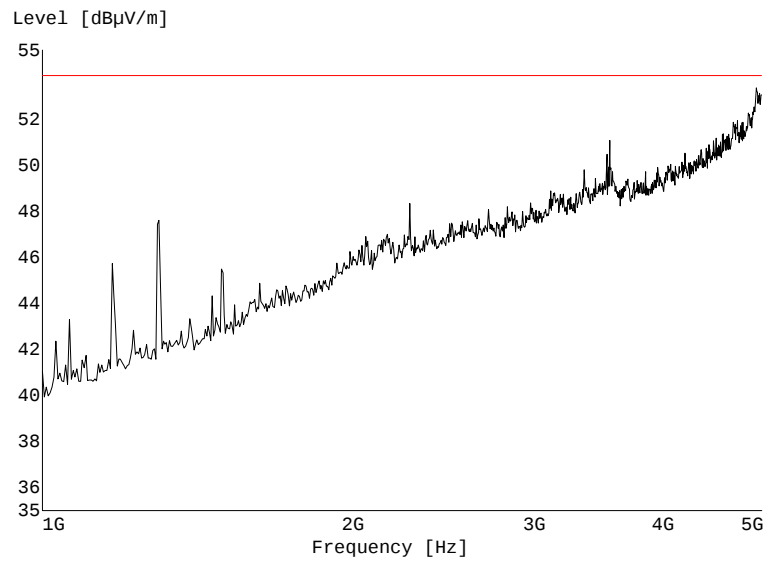
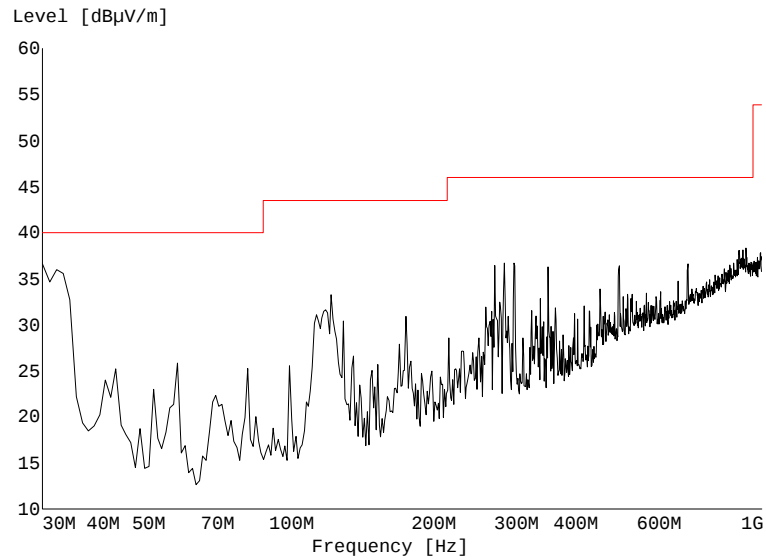
Radiated Emissions, Horizontal

Radiated Emissions, Vertical

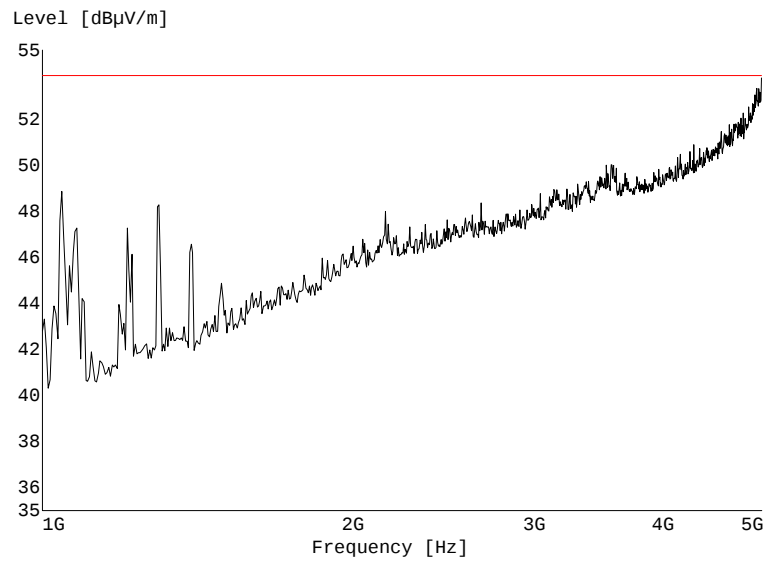
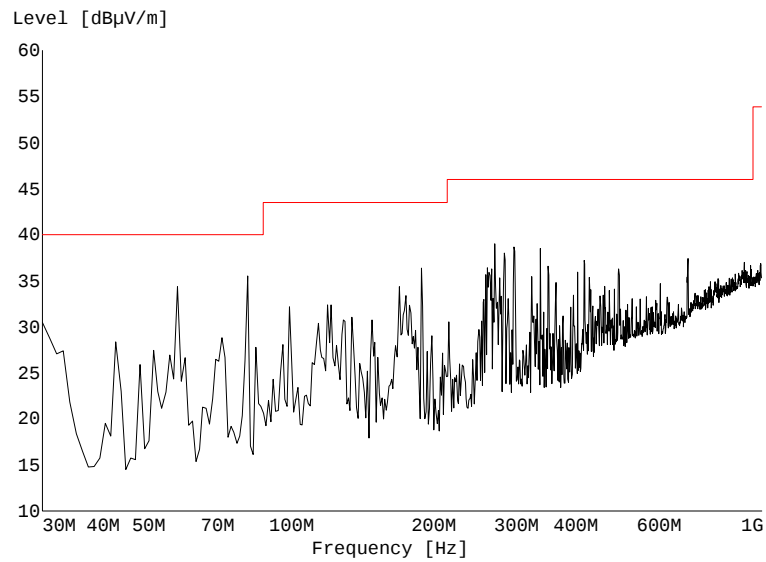
Conducted Emissions, Line Side

Conducted Emissions, Neutral Side

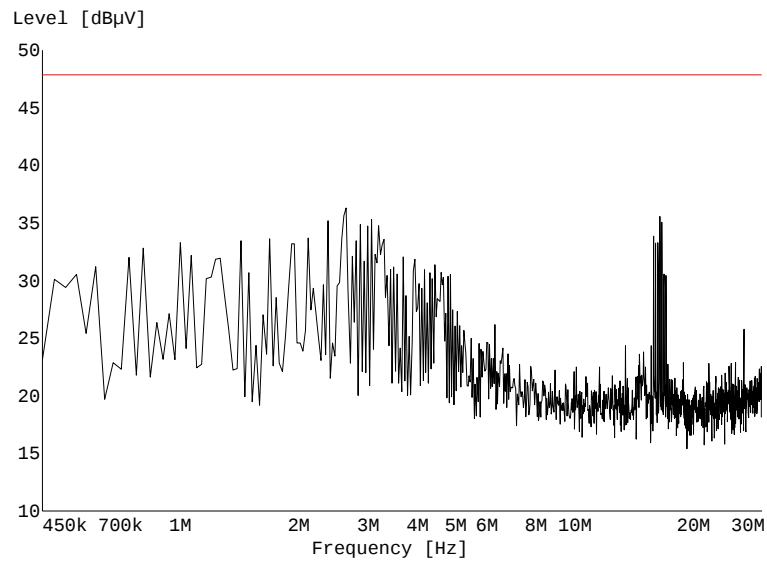
Radiated Emissions, Horizontal



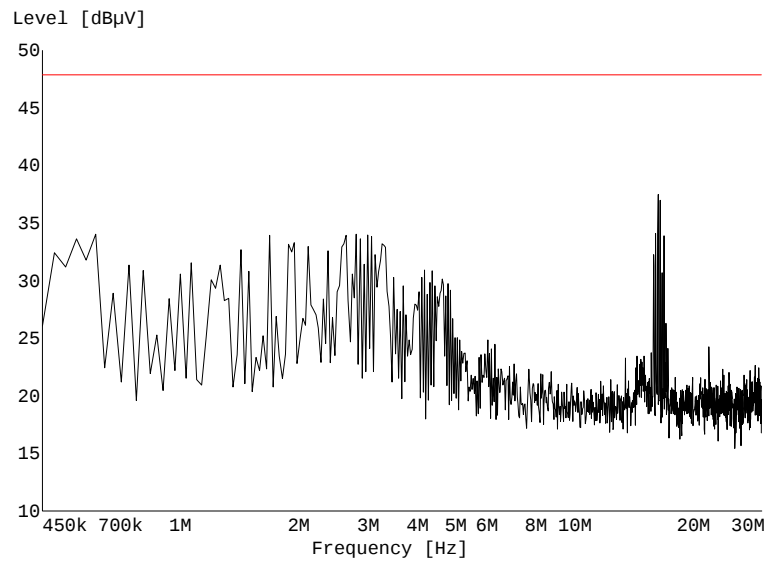
Radiated Emissions, Vertical



Conducted Emissions, Line Side



Conducted Emissions, Neutral Side



Attachment 2, Photographs

Radiated Emissions, Horizontal

Radiated Emissions, Vertical

Conducted Emissions

Radiated Emissions, Horizontal



Radiated Emissions, Vertical



Conducted Emissions

