ELECTROMAGNETIC COMPATIBILITY (EMC) REPORT

EMISSIONS ONLY

Aerielle Inc.

Model: SANSA1

FCC ID: RKVATBPA5V350

July 20, 2005

Project No.: 05CA24612

Test Report No.: NC5311-072005

Underwriters Laboratories Inc.
1655 Scott Blvd
Santa Clara, CA 95050

EMC Services Department Tel: (408) 876-2905 Fax: (408)556-6071

REPORT DIRECTORY

1.0 General Information

1.1 Scope

Underwriters Laboratories Inc., authorizes the above named company to reproduce this Report, provided it is reproduced in it's entirety. The data in this Report reflects only the items tested in the configurations and mode of operations described. All data recorded and photographs represents testing under the worst case conditions permitted by the requirements applied to the product. It is the manufacturer's responsibility to assure that additional production units are manufactured with identical electrical and mechanical components. Any modifications necessary for compliance made during testing must be implemented in all production units for compliance to be maintained.

Underwriters Laboratories Inc., shall have no liability for any deductions, inferences or generalizations drawn from this report. This report shall not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the United States government.

1.2 Purpose

Testing was performed to the following regulations:

Emissions Standards used: CFR 47 Part 15 Subpart C, CFR 47 Part 15.239

Except as noted below, all test methods and data contained in this report are covered by NVLAP accreditation.

Exceptions: None

1.3 Test Results

In Compliance

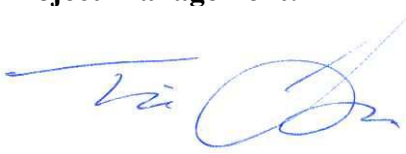
Statements regarding compliance with requirements and criteria in the subsequent sections of this report are opinions and interpretations provided by Underwriters Laboratories Inc. technical staff.

Transmitter Requirements

Environmental Phenomena	Frequency Range	FCC Section	Test Result
Conducted Emissions, AC Mains	0.15 – 30 MHz	15.207	Not Required (Battery Operated)
Spurious Radiated Emissions	30 – 1000 MHz	15.209,15.239(b)	Complies
Occupied Bandwidth (200 kHz)	88 – 108 MHz	15.239(a)	Complies
Antenna Requirements	88 – 108 MHz	15.203	Complies

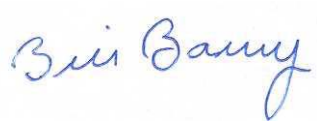
1.4 Documentation Review/Approval

Project Management:



Tim Lee
Staff Engineer
International EMC Services
Department 3014A

Technical Review By:



Tim Lee
Staff Engineer
International EMC Services
Department 3014A

2.0 General Product Description

Applicant	:	Aerielle Inc.
Manufactured By	:	Same as Applicant
License Holder	:	Not Applicable
Applicant Address	:	625 Ellis Street, Suite 206 Mountain View, CA 94043
Applicant Contact	:	Art Cohen
Model/Type No.	:	SANSA1
FCC ID	:	RKVATBPA5V350
Date of Issue	:	July 20, 2005
File No.	:	NC5311
Test Report No.	:	NC5311-072005
Project No.	:	05CA24612

Product Description

The Aerielle Sansa Car Kit is a low-powered FM Stereo Transmitter designed to operate in the commercial FM broadcast band used in many parts of the world and utilizes a standard 38 KHz L-R subcarrier signal format. It interfaces to an Apple iPod via the iPod docking connector. Power is supplied by a standard 12V cigarette lighter socket.

Equipment Size, Mobility, and Identification

Mobility: To be connected to an automobile cigarette lighter.
Serial No: Unknown

Electrical Ratings

	Voltage [Volts]	Current or Power	Frequency [Hz]	Phase
EUT	12 Vdc	25 mA	--	--

Test Voltage & Frequency

Unless indicated otherwise on the individual data sheet or test results, the test voltage and frequency was as indicated below.

Voltage	Frequency
12V	DC

Tunable Channels

The SANSA1 can be tuned to the following channels:

88.1, 88.3, 88.5, 88.7, 107.1, 107.3, 107.5, and 107.7 MHz

Equipment Type

Pre-Production

Model Differences

Any other model(s) represented by the models tested in this investigation will be documented by the manufacturer.

Device Modifications

The following modifications were necessary for compliance: None

EUT and Peripherals

Description	Manufacturer	Model/Part #	Serial Number
EUT	Aerielle	SANSA1	Unknown
Power System	MVP	I-6001	Unknown
iPod	Apple	iPod Mini	Unknown

Cables

Cable Type	Shield	Length (meters)	Ferrite	Connector	Connection Point 1	Connection Point 2
None	-	-	-	-	-	-

2.1 FCC Section 15.203 Antenna Requirements

The antenna is permanently attached to the PCB and the antenna is internal on the EUT. Therefore, it meets the 15.203 requirements.

2.2 Justification of Configuration

EUT was considered to be operating in a typical mode of operation.

2.3 EUT Operating Mode(s)

Equipment under test was operated during the measurement under the following conditions:

The EUT was connected to an MP3 player and operated both with and without 1 kHz tone depending on the test performed.

3.0 Environmental Conditions in Test Lab

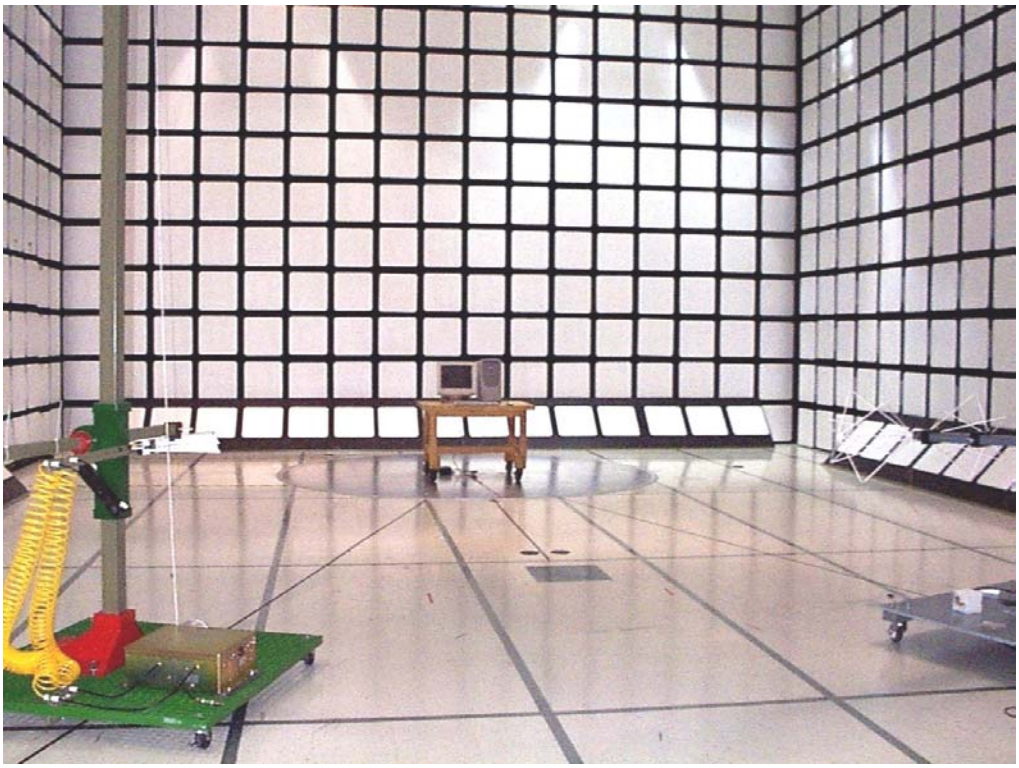
Temperature:	20-25 °C	Atmospheric Pressure:	680-1060 mbar
Relative Humidity:	30-60%		20.1-31.3 in. Hga

4.0 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the National Institute of Standards and Technology (NIST), therefore, all test data recorded in this report is traceable to NIST.

5.0 Test Facility

Underwriters Laboratories Inc.
1655 Scott Blvd.
Santa Clara, CA 95050
Phone: (408) 876-2905 Fax: (408) 556-6071



6.0 Accreditations and Authorizations

NVLAP Lab code: 200252-0

NVLAP: Recognized under the National Voluntary Laboratory Accreditation Program (NVLAP) for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. The specific scope includes IEC/CISPR 22:1997, Amendment 1:1995, Amendment 2:1997, EN 55022:1998, AS/NZS 1044, CNS 13438:1997, ANSI C63.4, FCC Method - 47 CFR Part 15, AS/NZS 3548, AS/NZS CISPR 22, CISPR 14-1, EN 55014-1, CNS 13783-1, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, RSS-112, RSS-117, RSS-118, RSS-119, RSS-123, RSS-125, RSS-128, RSS-129, RSS-130, RSS-131, RSS-132, RSS-133, RSS-134, RSS-135, RSS-136, RSS-137, RSS-139, RSS-141, RSS-142, RSS-170, RSS-181, RSS-182, RSS-187, RSS-188, RSS-191, RSS-192, RSS-193, RSS-210, RSS-212, RSS-213, RSS-215, GR-1089-CORE, SBC-TP-76200 Issue 4, and GR-63-CORE testing.

FCC: Details of the measurement facilities used for these tests have been filed with the Federal Communications Commission's Laboratory in Columbia, Maryland and accepted in a letter dated September 24, 1997 (Ref. No. 31040/SIT 1300F2).

Industry of Canada: Accredited by Industry Canada for performance of radiated measurements. Our test site complies with RSP 100, Issue 7, Section 3.3.
File #: IC 2704

VCCI: Accepted as an Associate Member to the VCCI. The measurement facilities detailed in this test report have been registered in accordance with Regulations for Voluntary Control Measures, Article 8.
Registration Nos.: (Radiated Emissions) R-672, (Conducted Emissions) C-689.

ICASA: ICASA (Independent Communications Authority of South Africa) has appointed UL as a Designated Test Laboratory to test Telecommunications equipment for type approval in compliance with CISPR 22 to assist in fulfilling its mandate under section 54(1) of the Telecommunications Act, 1996 (Act 103 of 1996).

NIST/CAB: Validated by the European Commission as a U.S. Conformity Assessment Body (CAB) of the U.S.-EU Mutual Recognition Agreement (MRA) for the Electromagnetic Compatibility - Council Directive 89/336/EEC, Article 10 (2). Also validated for the Telecommunication Equipment-Council Directive 99/5/EC, Annex III and IV, Identification Number: 0983.

NIST/CAB: Provisioned to act as a U.S. Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the Asia Pacific Economic Cooperation (APEC) MRA between the American Institute in Taiwan (AIT) and the United States. Our laboratory is considered qualified to test equipment subject to the applicable EMC regulations of the Chinese Taipei Bureau of Standards, Metrology and Inspection (BSMI) which require testing to CNS 13438 (CISPR 22).

NIST/CAB: Recognized by the Infocomm Development Authority of Singapore (IDA) under the Asia Pacific Economic Cooperation Mutual Recognition Agreement (APEC MRA). Our laboratory is provisionally designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC MRA. Our scope of designation includes IDA TS EMC (CISPR 22), IEC 61000-4-2, -4-3, -4-4, -4-5, and -4-6.
U.S. Identifier Number: US0114

7.0 Emissions Test Regulations

The emissions tests were performed according to following regulations:

---------- United States ----------

CFR 47 Part 15 Subpart C : 2004 Code of Federal Regulations, Part 15, Subpart C, Radio Frequency Devices - Intentional Radiators

7.1 Equipment Classifications

Class B Digital Device: *A digital device that is marketed for use in a residential environment notwithstanding use in commercial, business and industrial environments. Examples of such devices include, but are not limited to, personal computer, calculators, and similar electronic devices that are marketed for use by the general public.*

7.2 Field Strength Calculations

The field strength is calculated by adding the Transducer Factor (Antenna Factor) and Gain/Loss (Cable Loss, Preamp Gain) Factor to the Meter Reading. The basic equation with a sample calculation is as follows:

Field Strength = Meter Reading + Transducer Factor + Gain/Loss

Assume a receiver reading of 53.2 dBuV is obtained. The Transducer Factor of 5.1 dB and a Gain/Loss of –31 dB is added, giving a field strength of 27.3 dBuV.

FS = 53.2 + 5.1 + (-31) = 27.3 dBuV

Use the following formula to convert dBµV to µV: $x = 10^{(y/20)}$, where x is the value in µV and y is the value in dBµV.

Level in uV = 10^(27.3/20) = 23.2 uV

7.3 Measurement Uncertainty

When a measurement is made the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. The following statement of measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" value.

Uncertainty (dB)

		Biconical Antenna			Log Periodic Antenna		
Test Distance	Probability Distribution	10m +18 deg	10m -14 deg	3m	10m +18 deg	10m -14 deg	3m
Combined Standard Uncertainty $\mathbf{u_c(y)}$	Normal	±1.24	±1.25	±1.29	±1.14	±1.13	±1.9
Expanded uncertainty **U** (level of confidence = 95%)	Normal (k = 2)	±2.47	±2.49	±2.59	±2.28	±2.27	±2.76

Conducted Voltage Emissions	Probability Distribution	
Combined Standard Uncertainty $\mathbf{u_c(y)}$	Normal	±1.08
Expanded uncertainty **U** (level of confidence = 95%)	Normal (k = 2)	±2.16

$\mathbf{u_c(y)}$ = square root of the sum of squares of the individual standard deviation uncertainties.

U = combined standard uncertainty multiplied by the coverage factor: k. This defines an interval about the measured result that will encompass the true value with a confidence level of approximately 95%. If a higher level of confidence is required then k=3 (CL=97%) can be used.

"ISO Guide to the Expression of Uncertainty in Measurements" and 'NIS81: The Treatment of Uncertainty in EMC Measurements" were the basis for determining the uncertainty levels of our measurements. Details of those calculations are available upon request.

7.4 Measurement Bandwidths

Frequency Range (MHz)	Peak Data BW (kHz)	Quasi-Peak Data BW (kHz)	Average Data BW (kHz)
0.01 - 0.15	**1**	**3**	**0.2**
0.15 - 30	**10**	**9**	**100**
30 - 1000	**100**	**120**	**120**
Above 1000	**1000**	**N/A**	**1000**

7.5 Conducted Voltage Emissions; Section 15.207

UL Procedure

3314-LPG-004

Conducted voltage emissions are performed using a calibrated line impedence stabilization network (LISN), which isolates product emissions. The LISN is connected to a spectrum analyzer which scans the frequency range of measurement.

Remarks

The EUT is powered by A 3V lithium battery, type CR2, therefore, would not connect to the ac mains. This test was not performed.

7.6 Radiated Electric Field Emissions

Test Location Date Tested: 7/8/05

10 Meter Semi-Anechoic Chamber (Test Station 2) (Last NSA: 1/28/2005; Next NSA 1/28/2006)

Test Instruments

Instrument	Manufacturer	Model	ID#	Cal Last	Cal Next
Spectrum Analyzer	Hewlett-Packard	8566B	8034	7/30/2004	7/30/2005

Test Accessories

Instrument	Manufacturer	Model	ID#	Cal Last	Cal Next
Biconical Antenna	Electro-Metrics	EM-6912A	8018	1/27/2005	1/27/2006
Log Periodic Antenna	Electro-Metrics	EM-6950	8017	1/31/2005	1/31/2006
Pre-amplifier	Sonoma Instruments	310N	8085	5/2/2005	5/2/2006

UL Procedure

3314-LPG-013

Radiated spurious emissions applies to harmonics/spurs that fall in the restricted bands listed in Section 15.205. The maximum permitted average field strength is listed in 15.209. The limit for the fundamental emission is listed in 15.239(b) to be 250 μV/m @ 3m, or 37.5 dBμV/m @ 10m. Radiated spurious emissions tests were performed in a semi-anechoic chamber using a remote controlled turntable and the appropriate measuring antenna. Both antenna and turntable are adjusted to determine maximum emissions levels. The spectrum analyzer scanned up to 1 GHz.

Frequency Range of Measurement

30 MHz to 1 GHz

Measurement Distance

10 meters

Test Results

The requirements are:

MET

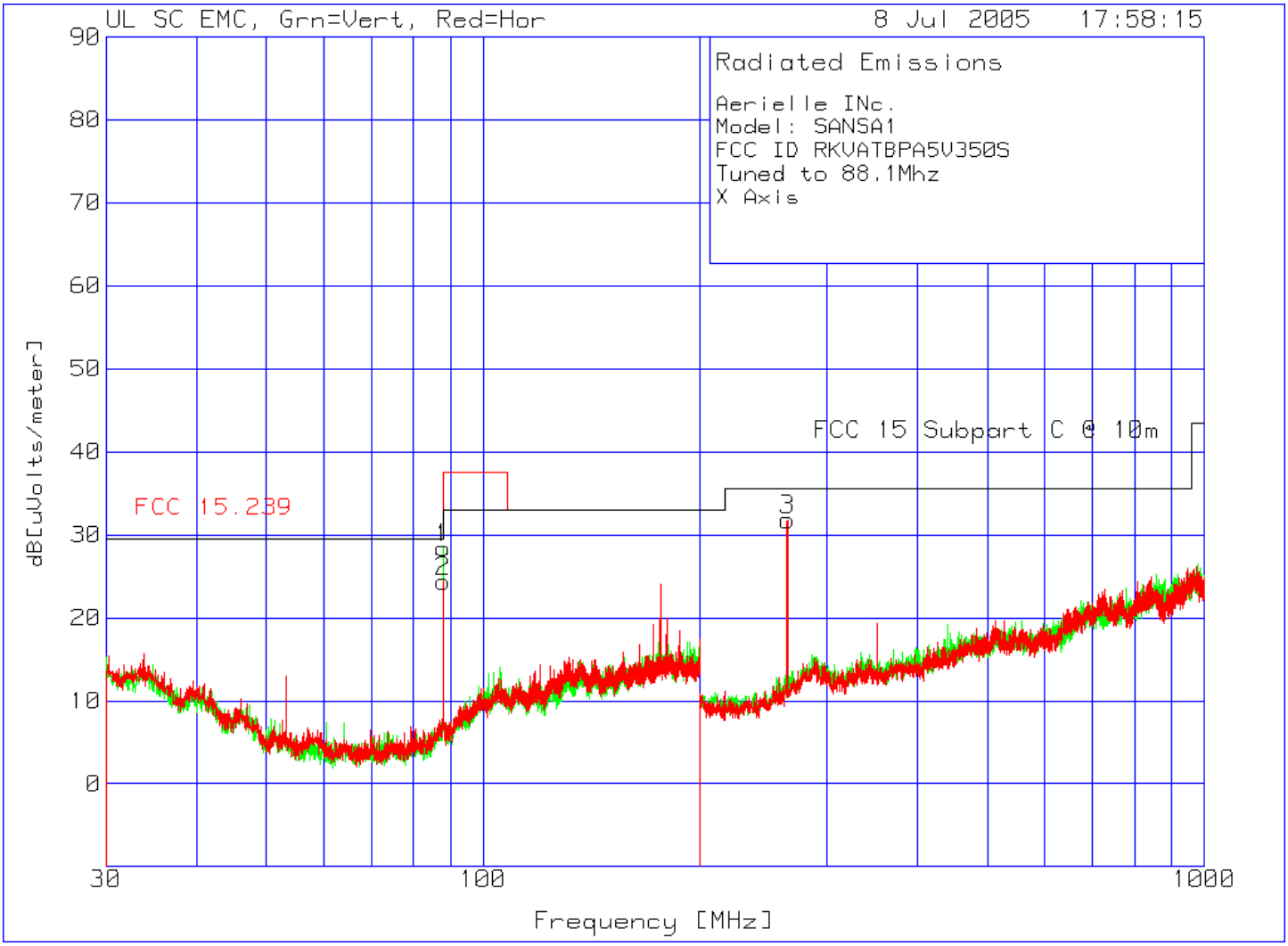
Tuned Frequency (MHz)	Minimum margin (dB) to fundamental limit	Minimum margin (dB) to spurious limit	SpuriosFrequency (MHz)
88.1	9.1 dB X-Axis	2.8 dB X-Axis	264
98.0	5.4 dB Y-Axis	Greater than 10	All frequencies
107.9	1.1 dB Z-Axis	Greater than 10	All frequencies

Remarks

All emissions within 10 dB were maximized.

Test Data

Tuned to 88.1 MHz



Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 88.1Mhz
X Axis

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 1 30 - 200MHz							
1	88.0114	46.8 pk	-27.8	9.4	28.4	37.5	33
	Azimuth:329	Height:101 Vert		Margin [dB]		-9.1	-4.6
Range: 2 30 - 200MHz							
2	88.0114	42.7 pk	-27.8	9.5	24.4	37.5	33
	Azimuth:198	Height:399 Horz		Margin [dB]		-13.1	-8.6
Range: 4 200 - 1000MHz							
3	264.1519	46.1 pk	-27	12.7	31.8	35.5	35.5
	Azimuth:88	Height:400 Horz		Margin [dB]		-3.7	-3.7

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 88.1Mhz
X Axis

Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 4 200 - 1000MHz						
264.2886	46.98 qp	-27	12.7	32.68	35.5	35.5
Azimuth: 112	Height:300 Horz		Margin [dB]:		-2.82	-2.82

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

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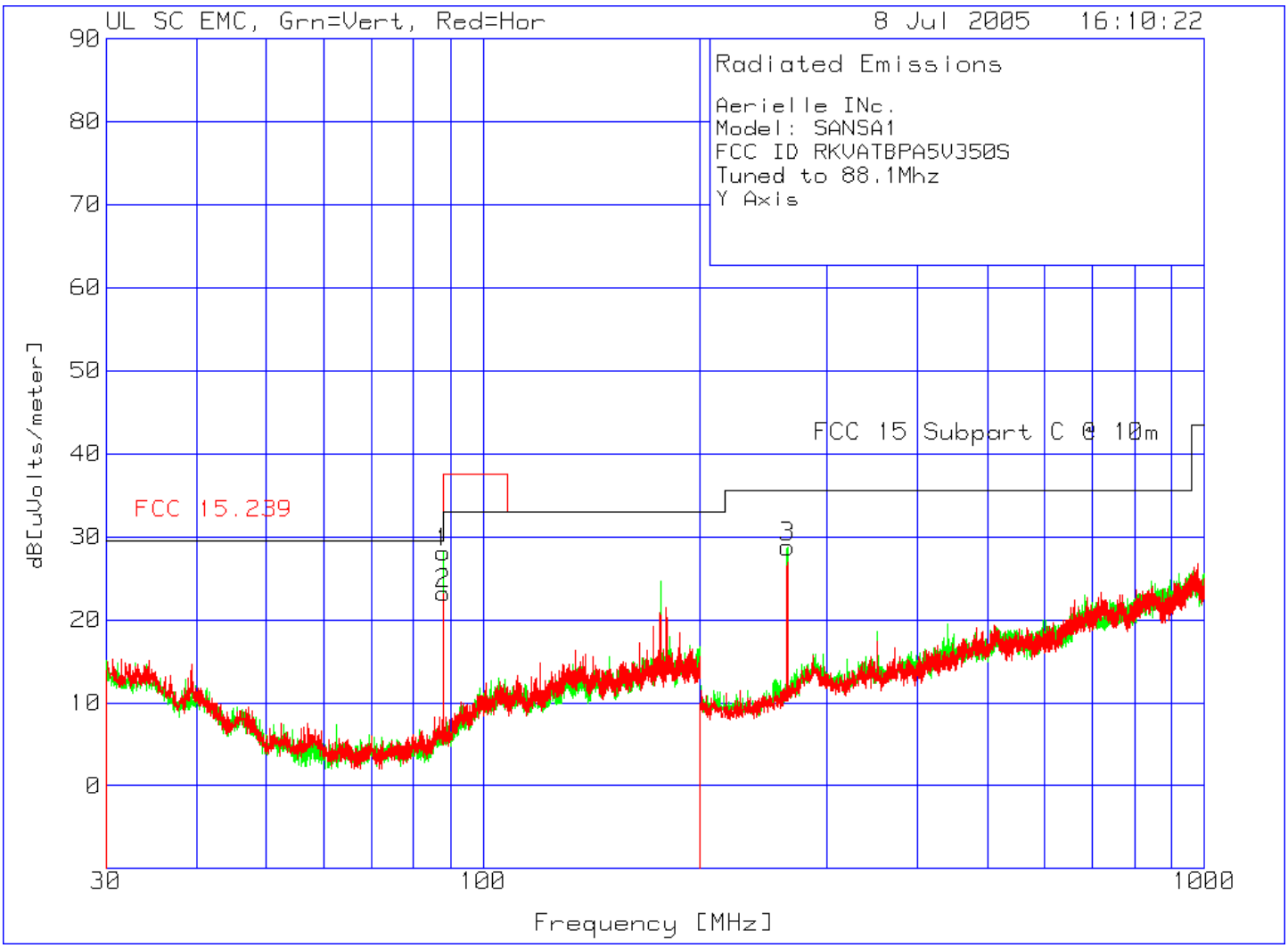
ave - Average detector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Radiated Emissions
Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 88.1Mhz
Y Axis
FCC 15 Subpart C @ 10m
FCC 15.239
dB[uVolts/meter]
Frequency [MHz]
90
80
70
60
50
40
30
20
10
0
30
100
1000

Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 88.1Mhz
Y Axis

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 1 30 - 200MHz ----------							
1	88.0114	46.5 pk	-27.8	9.4	28.1	37.5	33
	Azimuth:60	Height:101 Vert		Margin [dB]		-9.4	-4.9
Range: 2 30 - 200MHz ----------							
2	88.0539	41.5 pk	-27.8	9.5	23.2	37.5	33
	Azimuth:136	Height:399 Horz		Margin [dB]		-14.3	-9.8
Range: 3 200 - 1000MHz ----------							
3	264.1519	42.8 pk	-27	13	28.8	35.5	35.5
	Azimuth:287	Height:101 Vert		Margin [dB]		-6.7	-6.7

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

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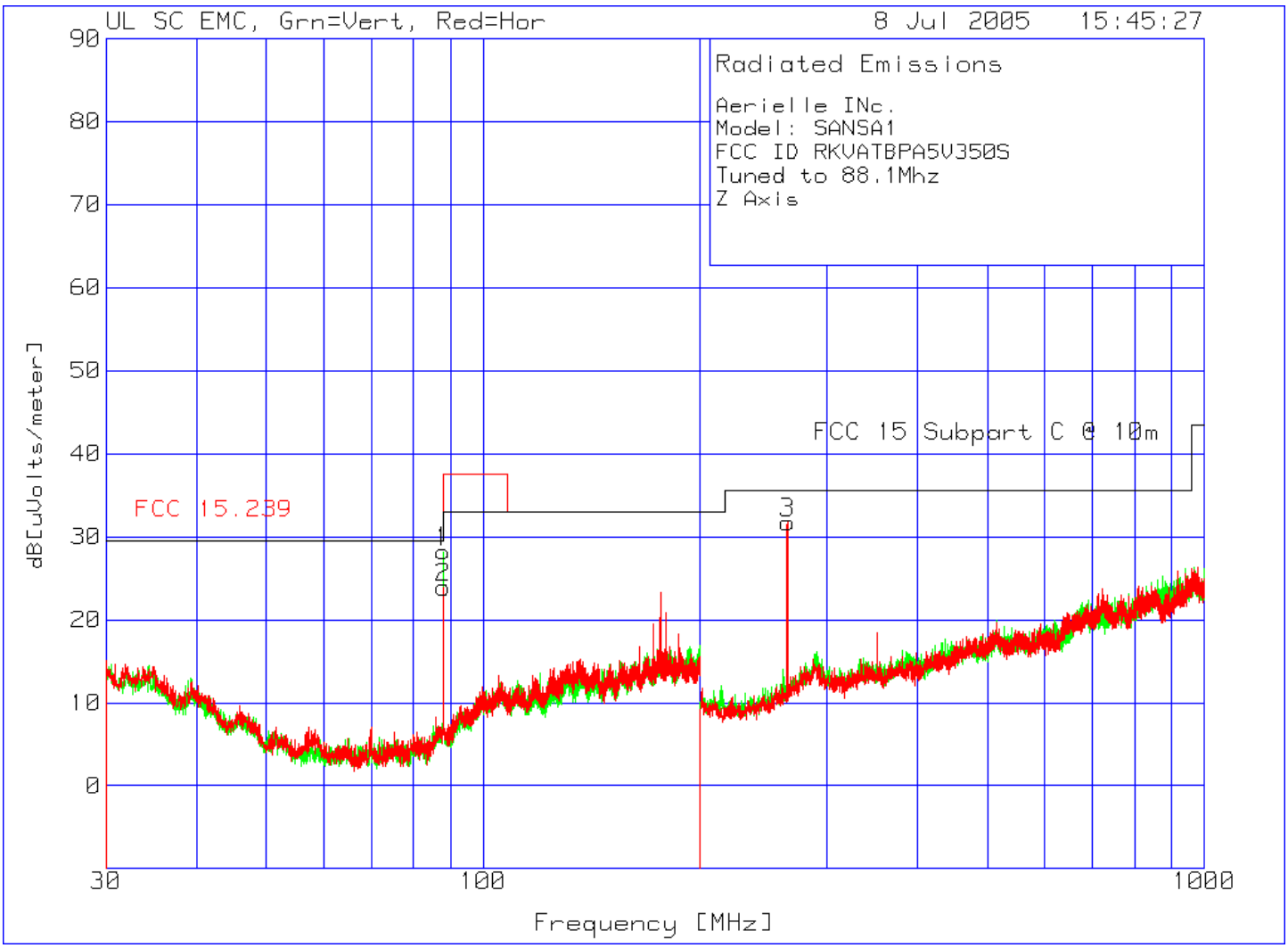
ave - denotes average detection
tm - Trace Math Result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Radiated Emissions
Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 88.1Mhz
Z Axis
FCC 15 Subpart C @ 10m
FCC 15.239
dB[uVolts/meter]
Frequency [MHz]
90
80
70
60
50
40
30
20
10
0
30
100
1000

Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 88.1Mhz
Z Axis

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 1 30 - 200MHz							
1	88.0114	46.6 pk	-27.8	9.4	28.2	37.5	33
	Azimuth:217	Height:101 Vert		Margin [dB]		-9.3	-4.8
Range: 2 30 - 200MHz							
2	88.0327	42.2 pk	-27.8	9.5	23.9	37.5	33
	Azimuth:275	Height:399 Horz		Margin [dB]		-13.6	-9.1
Range: 4 200 - 1000MHz							
3	264.1519	46 pk	-27	12.7	31.7	35.5	35.5
	Azimuth:55	Height:400 Horz		Margin [dB]		-3.8	-3.8

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

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Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 88.1Mhz
Z Axis

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 4 200 - 1000MHz						
264.2461	46.58 qp	-27	12.7	32.28	35.5	35.5
Azimuth: 43	Height:296 Horz		Margin [dB]:		-3.22	-3.22

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

pk - Peak detector
qp - Quasi-Peak detector
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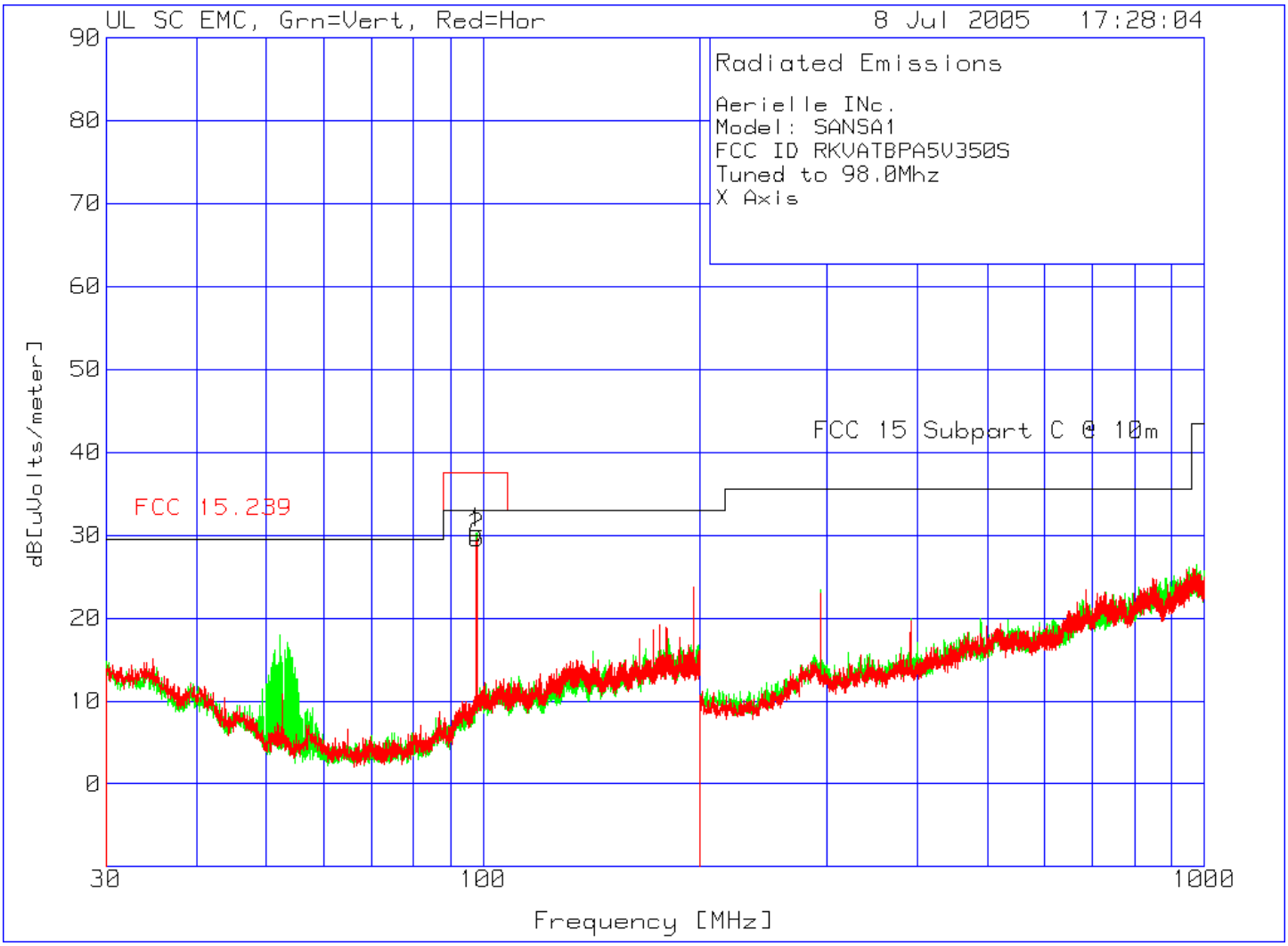
avlg - Average log detector
ave - Average detector

Tuned to 98.0 MHz



Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 98.0Mhz
X Axis

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 1 30 - 200MHz ----------							
1	97.9065	46.9 pk	-27.7	11.1	30.3	37.5	33
	Azimuth:339	Height:101 Vert		Margin [dB]		-7.2	-2.7
Range: 2 30 - 200MHz ----------							
2	97.949	46.4 pk	-27.7	11	29.7	37.5	33
	Azimuth:210	Height:399 Horz		Margin [dB]		-7.8	-3.3

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

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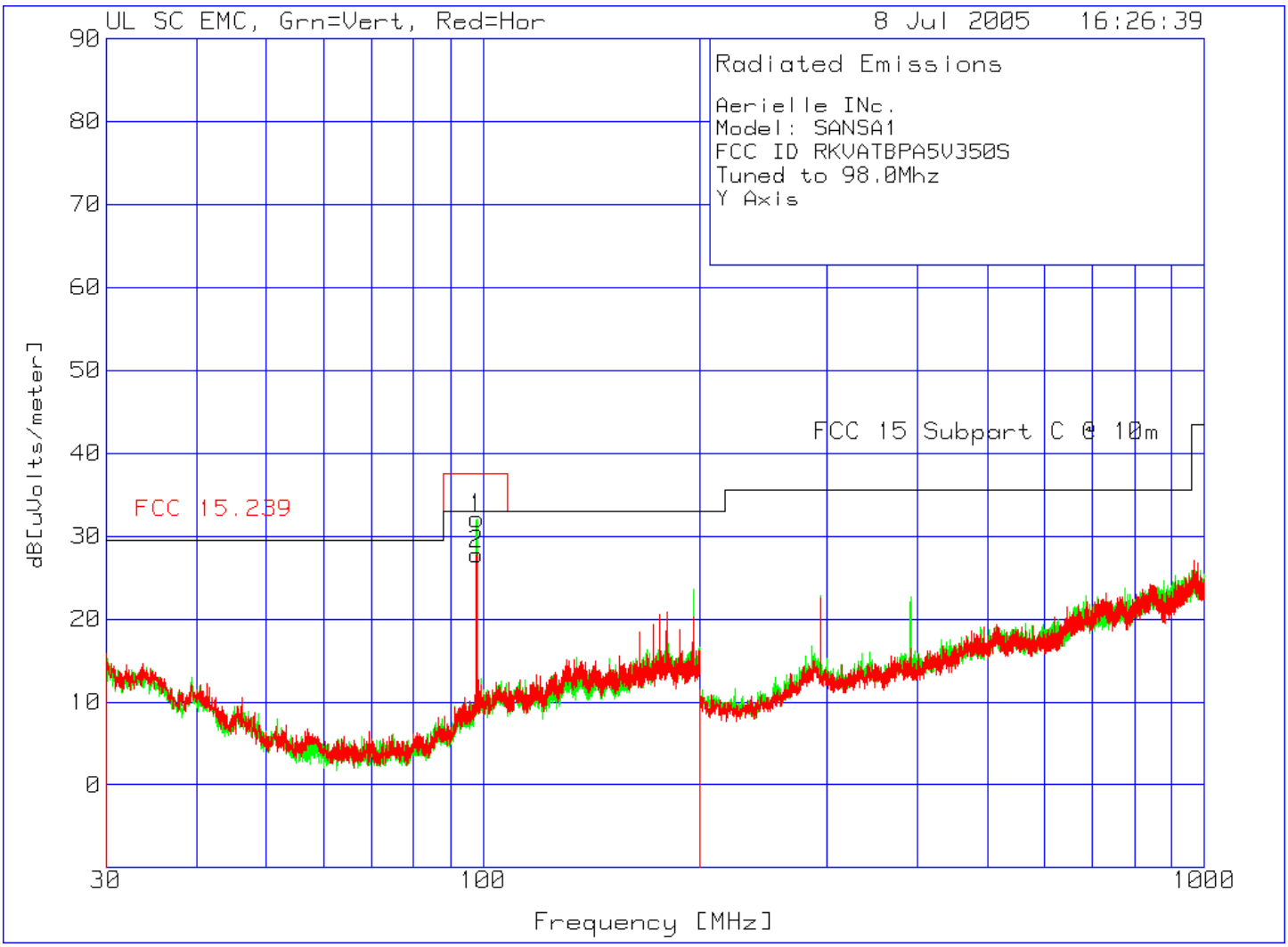
ave - denotes average detection
tm - Trace Math Result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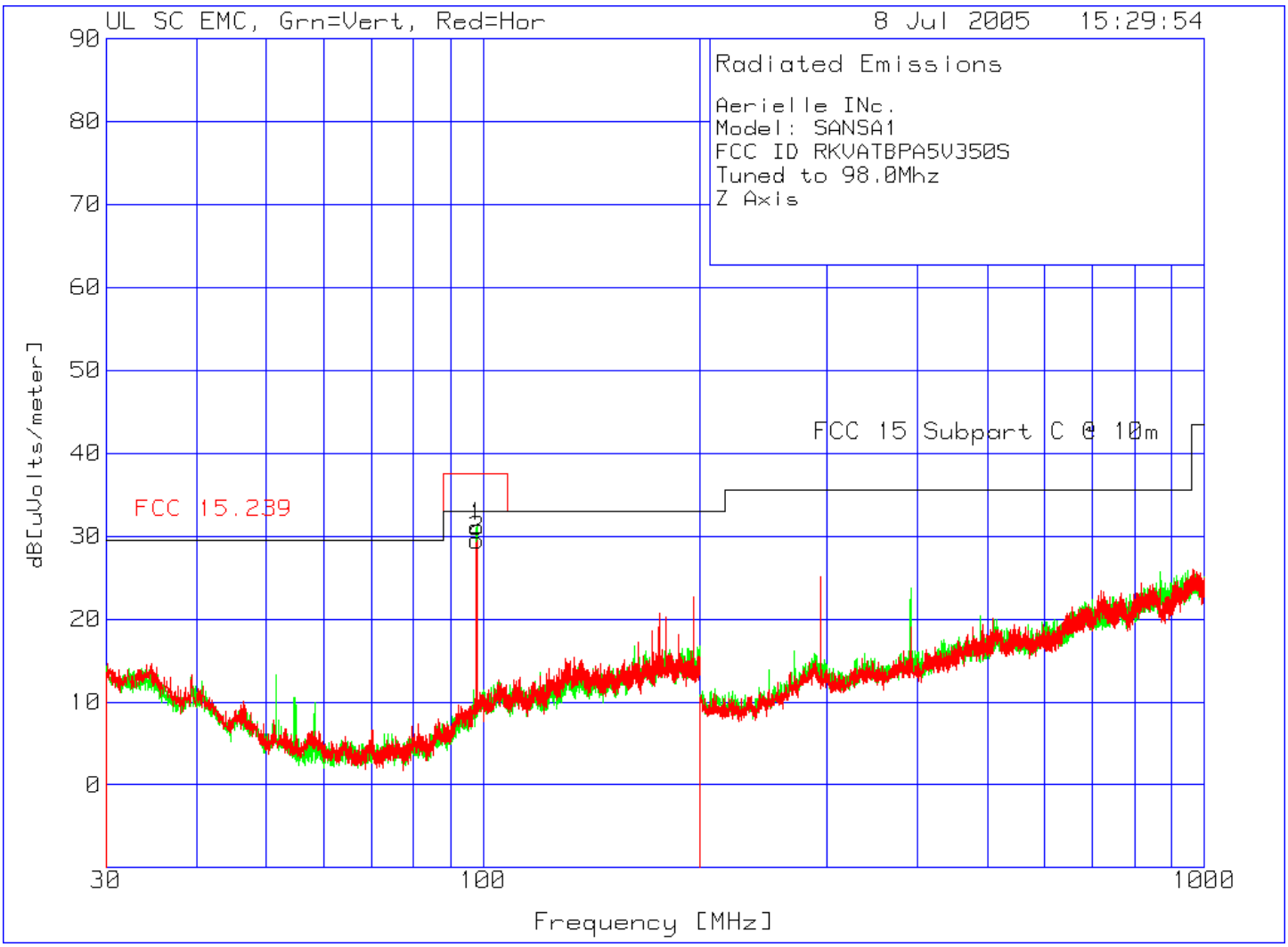
Radiated Emissions
Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 98.0Mhz
Y Axis
FCC 15 Subpart C @ 10m
FCC 15.239
dB[uVolts/meter]
Frequency [MHz]
90
80
70
60
50
40
30
20
10
0
30
100
1000

Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 98.0Mhz
Y Axis

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 1 30 - 200MHz ----------							
1	97.949	48.7 pk	-27.7	11.1	32.1	37.5	33
	Azimuth:17	Height:101 Vert		Margin [dB]		-5.4	-.9
Range: 2 30 - 200MHz ----------							
2	97.9065	44.5 pk	-27.7	11	27.8	37.5	33
	Azimuth:136	Height:399 Horz		Margin [dB]		-9.7	-5.2

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result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Radiated Emissions
Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 98.0Mhz
Z Axis
FCC 15 Subpart C @ 10m
FCC 15.239
dB[uVolts/meter]
Frequency [MHz]
90
80
70
60
50
40
30
20
10
0
30
100
1000

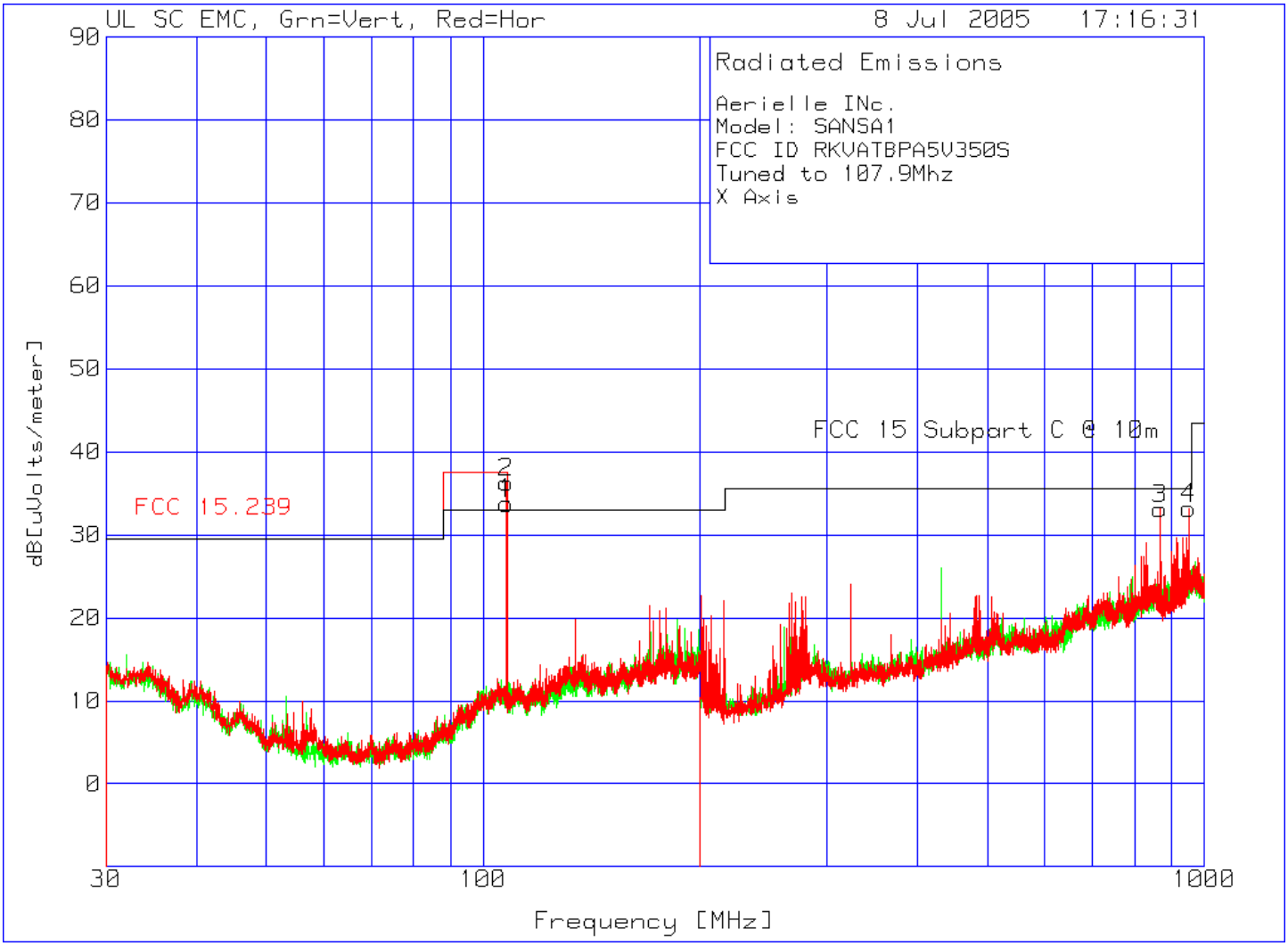
Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 98.0Mhz
Z Axis

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 1 30 - 200MHz ----------							
1	97.949	47.7 pk	-27.7	11.1	31.1	37.5	33
	Azimuth:185	Height:101 Vert		Margin [dB]		-6.4	-1.9
Range: 2 30 - 200MHz ----------							
2	97.949	46.2 pk	-27.7	11	29.5	37.5	33
	Azimuth:296	Height:399 Horz		Margin [dB]		-8	-3.5

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

Tuned to 107.9 MHz



Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 107.9Mhz
X Axis

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 1 30 - 200MHz							
1	107.7591	48.8 pk	-27.6	12.6	33.8	37.5	33
	Azimuth:135	Height:101 Vert		Margin [dB]		-3.7	.8
Range: 2 30 - 200MHz							
2	107.7591	51.6 pk	-27.6	12.3	36.3	37.5	33
	Azimuth:210	Height:399 Horz		Margin [dB]		-1.2	3.3
Range: 4 200 - 1000MHz							
3	868.0989	36.9 pk	-24.9	21.1	33.1	35.5	35.5
	Azimuth:20	Height:400 Horz		Margin [dB]		-2.4	-2.4
4	951.8361	33.3 pk	-23.9	23.8	33.2	35.5	35.5
	Azimuth:265	Height:400 Horz		Margin [dB]		-2.3	-2.3

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

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av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 107.9Mhz
X Axis

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 4 200 - 1000MHz						
868.1	21.66 qp	-24.9	21.1	17.86	35.5	35.5
Azimuth: 0	Height:400 Horz		Margin [dB]:	-17.64	-17.64	
951.836	20.54 qp	-23.9	23.8	20.44	35.5	35.5
Azimuth: 0	Height:400 Horz		Margin [dB]:	-15.06	-15.06	

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

pk - Peak detector
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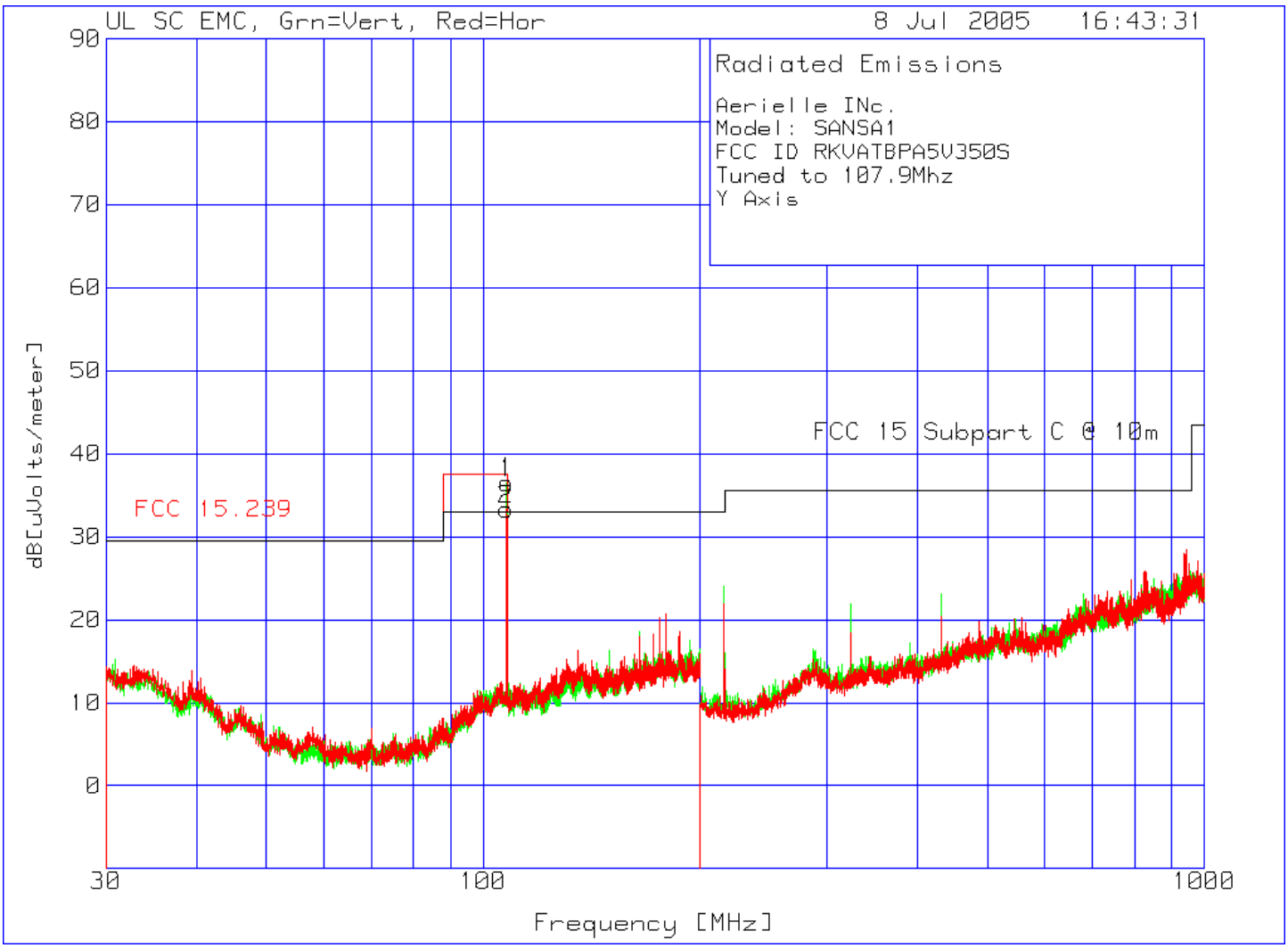
av - Average detector
avlg - Average log detector
ave - Average detector


UL SC EMC, Grn=Vert, Red=Hor
8 Jul 2005 16:43:31
Radiated Emissions
Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 107.9Mhz
Y Axis
FCC 15 Subpart C @ 10m
FCC 15.239
dB[uVolts/meter]
Frequency [MHz]
90
80
70
60
50
40
30
20
10
0
30
100
1000

Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 107.9Mhz
Y Axis

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 1 30 - 200MHz							
1	107.8016	51.5 pk	-27.6	12.6	36.5	37.5	33
	Azimuth:38	Height:101 Vert		Margin [dB]		-1	3.5
Range: 2 30 - 200MHz							
2	107.7166	48.6 pk	-27.6	12.3	33.3	37.5	33
	Azimuth:146	Height:399 Horz		Margin [dB]		-4.2	.3

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

pk - Peak detector
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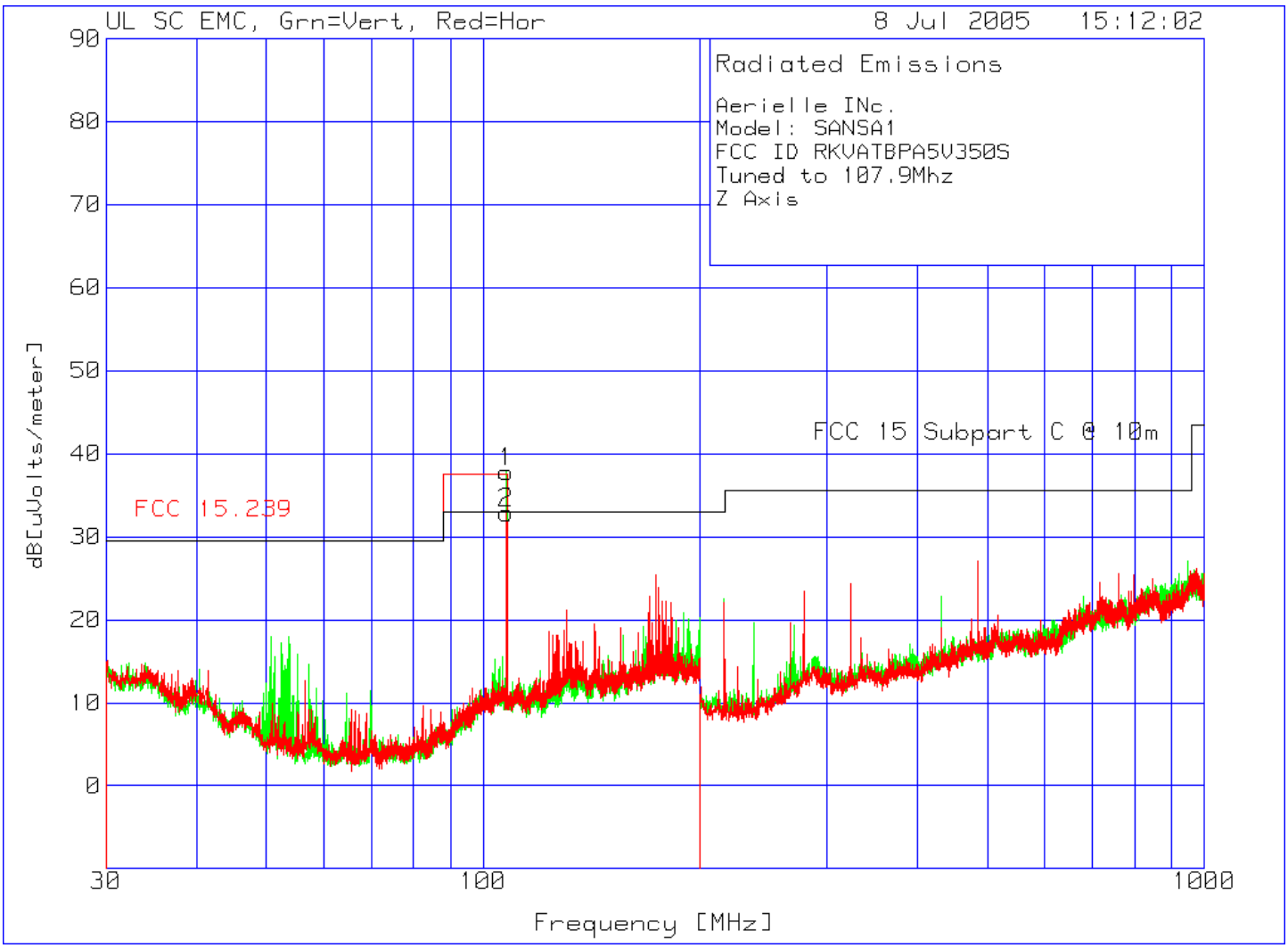
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result


UL SC EMC, Grn=Vert, Red=Hor
8 Jul 2005 15:12:02
Radiated Emissions
Aerielle INc.
Model: SANSA1
FCC ID RKVATBPA5V350S
Tuned to 107.9Mhz
Z Axis
FCC 15 Subpart C @ 10m
FCC 15.239
dB[uVolts/meter]
Frequency [MHz]
90
80
70
60
50
40
30
20
10
0
30
100
1000

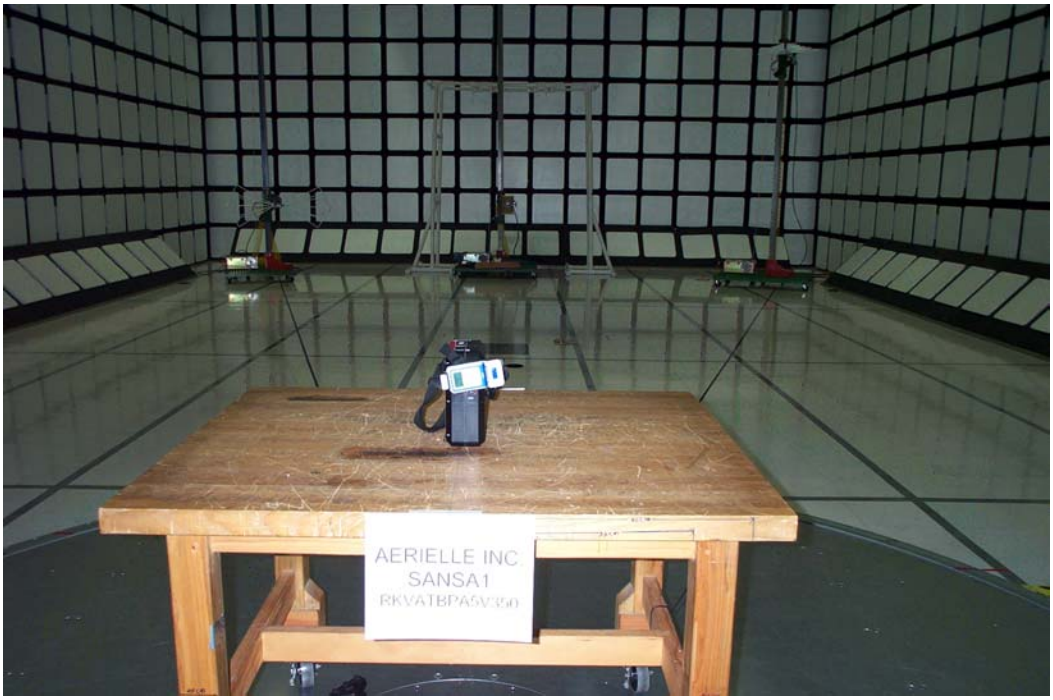
Aerielle INC.
Model: SANSA1
FCC ID RKVATBPA5V350
Tuned to 107.9Mhz
Z Axis

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2
Range: 1 30 - 230MHz						
107.8316	51.5 pk	-27.6	12.9	36.8	37.5	33
Azimuth: 169	Height:105 Vert		Margin [dB]:	-.7		3.8
107.8316	51.03 av	-27.6	12.9	36.33	37.5	33
Azimuth: 169	Height:105 Vert		Margin [dB]:	-1.17		3.33
Range: 2 30 - 230MHz						
107.83	48.5 pk	-27.6	12.5	33.4	37.5	33
Azimuth: 280	Height:392 Horz		Margin [dB]:	-4.1		.4
107.83	48.66 av	-27.6	12.5	33.56	37.5	33
Azimuth: 280	Height:392 Horz		Margin [dB]:	-3.94		.56

LIMIT 1: FCC 15.239
LIMIT 2: FCC 15 Subpart C @ 10m

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector

Photographs



7.7 Occupied Bandwidth; Section 15.239(a)

Test Location Date Tested: 7/8/05

Ground Plane #1 (Test Station 5)

Test Instruments

Instrument	Manufacturer	Model	ID#	Cal Last	Cal Next
Spectrum Analyzer	Hewlett-Packard	8546A	8098	8/25/04	8/25/05

UL Procedure

Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88-108 MHz. The measurement was made with the spectrum analyzer's resolution bandwidth set to (RBW) = 10 kHz. The VBW = RBW. The frequency difference of two frequencies that are attenuated 26 dB from the peak of the unmodulated signal down the slopes of the modulated signal envelope are recorded. The difference of these two frequencies gives the occupied bandwidth.

Test Data

Fundamental Frequency (MHz)	Bandwidth (kHz)
88.1	151.5
98.0	179.5
107.9	157.0

Test Results

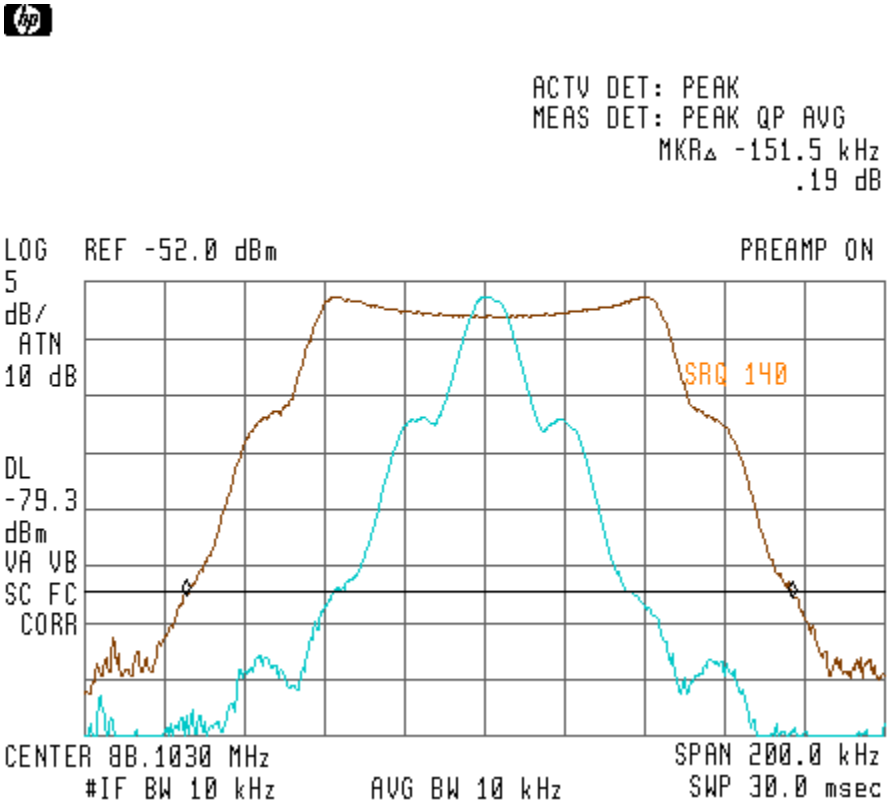
The requirements are:

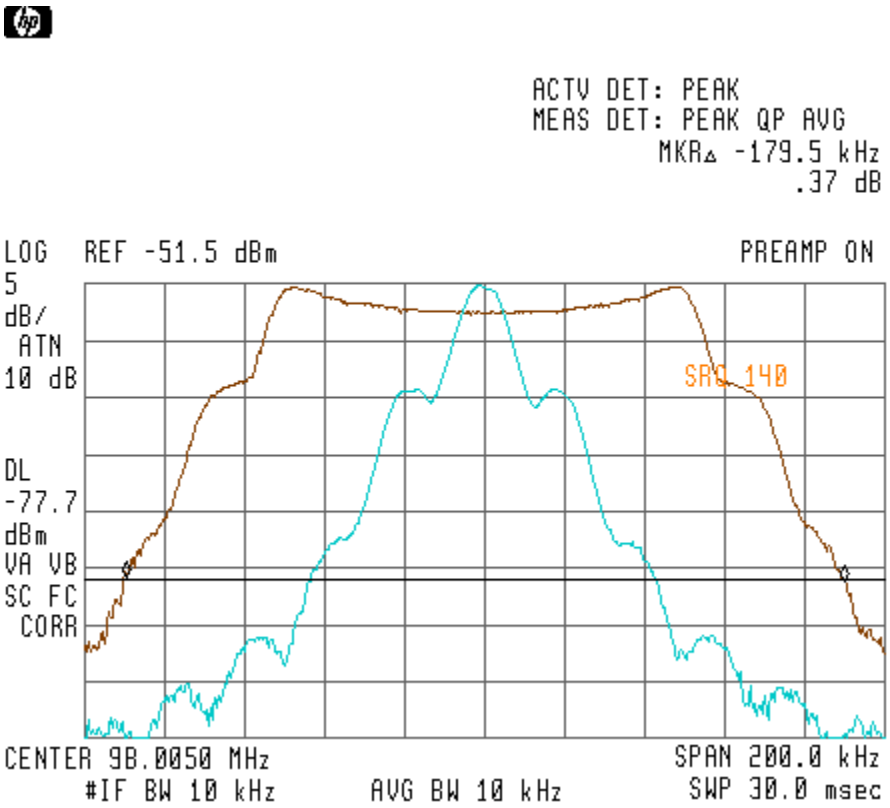
MET maximum emission bandwidth is 179.5 kHz.

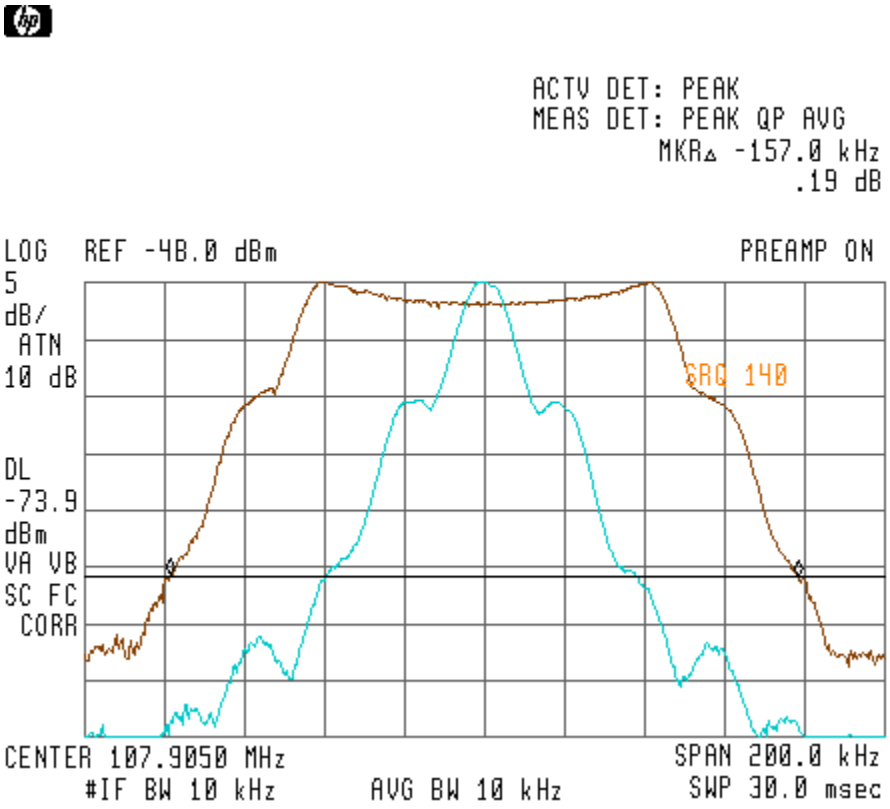
Remarks

None

Test Data


ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKRΔ -151.5 kHz
.19 dB
LOG
5
dB/
ATN
10 dB
REF -52.0 dBm
PREAMP ON
SRC 140
DL
-79.3
dBm
VA VB
SC FC
CORR
CENTER 88.1030 MHz
#IF BW 10 kHz
AVG BW 10 kHz
SPAN 200.0 kHz
SWP 30.0 msec


ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKRΔ -179.5 kHz
.37 dB
LOG
5
dB/
ATN
10 dB
REF -51.5 dBm
PREAMP ON
SRC 140
DL
-77.7
dBm
VA VB
SC FC
CORR
CENTER 98.0050 MHz
#IF BW 10 kHz
AVG BW 10 kHz
SPAN 200.0 kHz
SWP 30.0 msec


ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKRΔ -157.0 kHz
.19 dB
LOG REF -48.0 dBm
PREAMP ON
5
dB/
ATN
10 dB
CRC 140
DL
-73.9
dBm
VA VB
SC FC
CORR
CENTER 107.9050 MHz
SPAN 200.0 kHz
#IF BW 10 kHz
AVG BW 10 kHz
SWP 30.0 msec