

TEST REPORT



Certification # 1367-01

Laboratory ID

PRODUCT SAFETY ENGINEERING, INC.
12955 Bellamy Brothers Boulevard
Dade City, Florida 33525 USA
PH (352) 588-2209 FX (352) 588-2544

Submitter ID

Audiovox Electronics Corporation
150 Marcus Blvd.
Hauppauge, NY 11788

Report Issue Date: 09 SEP 05
Sample ID# NONE
Sample Receipt Date: 31 AUG 05

Test Report Number: 05F342B
Model Designation: 136-4040
Product Description: Satellite Radio Receiver
and FM Transmitter

Sample Test Date: see data sheets

Marketing Approval _____

Description of non-standard test method or test practice: *None*

Estimated Measurement Uncertainty: *Not Applicable*

Special limitations of use: *None*

Traceability: *reference standards of measurement have been calibrated by a competent body using standards traceable to the NIST.*

According to testing performed at Product Safety Engineering, Inc., the above-mentioned unit is in compliance with the electromagnetic compatibility requirements defined in regulations indicated on page (3) of the test report. The test results contained herein relate only to the model(s) identified above. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics.

As the responsible EMC Project Engineer, I hereby declare that the equipment tested as specified above conforms to the requirements indicated on page (3) of the test report.

Signature *David Foerstner*

Name David Foerstner

Title Engineering Group Leader

Date 09 SEPT 05

Reviewed by:

Approved Signatory *John E. Hale*

Date 09 SEP 05

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Test Report Number 05F342B

Product Safety Engineering, Inc 12955 Bellamy Brothers Blvd. Dade City, FL 33525
Tel (352) 588-2209 Fax (352) 588-2544

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EMISSIONS TEST REGULATIONS :

The emissions tests were performed according to following regulations:

- EN 61000-6-3:2001
- EN 61000-6-4:2001

- EN 55011 : 1998 / A1:1999
 - Group 1
 - Group 2
 - Class A
 - Class B
- EN 55013 : 1990 / A12:1994 / A13:1996 / A14:1999

- EN 55014 -1: 2001
 - Household appliances and similar
 - Portable tools
 - Semiconductor devices

- EN 55022 : 1998
 - Class A
 - Class B
- AS/NZS 3548:1995
 - Class A
 - Class B
- ICES-003
 - Class A
 - Class B
- CNS 13438
 - Class A
 - Class B
- VCCI : 1999
 - Class A
 - Class B
- - FCC Part 15
 - Class A
 - - Class B
 - - Certification (Intentional Radiator portion only)
 - Verification
 - Declaration of Conformity

- FCC Part 18

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Environmental conditions during testing:

	LAB	OATS
Temperature: *	_____	: _____
Relative Humidity: **	_____	: _____

* The ambient temperature during the testing was within the range of (50° - 104° F) unless indicted above.

** The humidity levels during the testing was within the range of (10% - 90%) relative humidity unless indicated above.

Power supply system (Home) : 110 Volts 60 Hz SINGLE phase to 5 VDC

Power supply system (Mobile) : 12 Volts Volts DC to 5 VDC

Sign Explanations:

- not applicable
- applicable

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Emissions Test Conditions: CONDUCTED EMISSIONS (Interference Voltage)

The *CONDUCTED EMISSIONS (INTERFERENCE VOLTAGE)* measurements were performed at the following test location:

- Test not applicable

- Darby Test Site (Open Area Test Site)
- Darby Laboratory

Test equipment used :

	Model Number	Manufacturer	Description	Serial Number
<input checked="" type="checkbox"/>	8028-50	Solar	50 Ω LISN	829012, 829022
<input type="checkbox"/>	3825/2	Solar	50 Ω LISN	924840
<input checked="" type="checkbox"/>	EMC-30	Electro-Metrics	EMI Receiver	191
<input type="checkbox"/>	8566B	Hewlett-Packard	Spectrum Analyzer	2421A00526
<input type="checkbox"/>	85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
<input type="checkbox"/>	85662A	Hewlett Packard	Analyzer Display	2403A07352
<input type="checkbox"/>	8028-50	Solar	50 Ω LISN	903725, 903726
<input type="checkbox"/>	FCC-TLISN-T4	Fisher Custom Com.	Telecom ISN	20072

Emissions Test Conditions: RADIATED EMISSIONS (Magnetic Field)

The *RADIATED EMISSIONS (MAGNETIC FIELD)* measurements were performed at the following test location:

- Darby Test Site (Open Area Test Site)
-
-

at a test distance of :

- 3 meters
- 30 meters

- Test not applicable

Test equipment used :

	Model Number	Manufacturer	Description	Serial Number
<input type="checkbox"/>	96005	Eaton	Log Periodic Antenna	1099
<input type="checkbox"/>	BIA-25	Electro-Metrics	Biconical Antenna	4283
<input type="checkbox"/>	8566B	Hewlett-Packard	Spectrum Analyzer	2421A00526
<input type="checkbox"/>	85662A	Hewlett-Packard	Analyzer Display	2403A07352
<input type="checkbox"/>	85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
<input type="checkbox"/>	ALR-30M	Electro-Metrics	Loop Antenna	824
<input type="checkbox"/>	8447D	Hewlett Packard	Preamplifier	2944A06832
<input type="checkbox"/>	EMC-30	Electro-Metrics	EMI Receiver	191
<input type="checkbox"/>	ALA-130/A	Antenna Research	Loop Antenna	106

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Emissions Test Conditions: RADIATED EMISSIONS (Electric Field)

The *RADIATED EMISSIONS (ELECTRIC FIELD)* measurements, in the frequency range of 30 MHz-1000 MHz, were tested in a horizontal and vertical polarization at the following test location :

- Test not applicable

- Darby Site (Open Area Test Site)
- Darby Lab
-

at a test distance of :

- 3 meters
- 10 meters
- 30 meters

Test equipment used :

Model Number	Manufacturer	Description	Serial Number
<input checked="" type="checkbox"/> - LPA30	eElectro-Metrics	Log Periodic Antenna	2280
<input checked="" type="checkbox"/> - BIA-30	Electro-Metrics	Biconical Antenna	3852
<input checked="" type="checkbox"/> - 8566B	Hewlett-Packard	Spectrum Analyzer	2421A00526
<input checked="" type="checkbox"/> - 85662A	Hewlett-Packard	Analyzer Display	2403A07352
<input checked="" type="checkbox"/> - 85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
<input checked="" type="checkbox"/> - 8447D	Hewlett-Packard	Preamplifier (26dB)	2944A06832
<input type="checkbox"/> - EMC-30	Electro-Metrics	EMI Receiver	191
<input type="checkbox"/> - 8568B	Hewlett Packard	Spectrum Analyzer	2407A03213
<input type="checkbox"/> - 85650A	Hewlett Packard	Quasi-Peak Adapter	2043A00358
<input type="checkbox"/> - 85662A	Hewlett Packard	Analyzer Display	2340A05806
<input type="checkbox"/> - 96005	Eaton	Log Periodic	1099
<input type="checkbox"/> - BIA 25	Electro-Metrics	Biconical Antenna	4283

Emissions Test Conditions): INTERFERENCE POWER

The *INTERFERENCE POWER* measurements were performed by using the absorbing clamp on the mains and interface cables in the frequency range 30 MHz - 300 MHz at the following test location :

- Test not applicable

- Darby Lab
-

Test equipment used :

Model Number	Manufacturer	Description	Serial Number
<input type="checkbox"/> - MDS-21	Rhode&Schwarz	Absorbing Clamp	8608447020
<input type="checkbox"/> - 8566B	Hewlett-Packard	Spectrum Analyzer	2421A00526
<input type="checkbox"/> - 85662A	Hewlett-Packard	Analyzer Display	2403A07352
<input type="checkbox"/> - 85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
<input type="checkbox"/> - 8447D	Hewlett-Packard	Amplifier (26 dB)	2944A06832
<input type="checkbox"/> - EMC-30	Electro-Metrics	EMI Receiver	191

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The *EQUIVALENT RADIATED EMISSIONS* measurements in the frequency range 1 GHz - 1.1 GHz were performed in a horizontal and vertical polarization at the following test location :

- - Darby Test Site (Open Area Test Site)
- -
- -
- -

at a test distance of:

- - 1 meters
- - 3 meters
- - 10 meters

□ - Test not applicable

Test equipment used :

Model Number	Manufacturer	Description	Serial Number
■ - 8566B	Hewlett-Packard	Spectrum Analyzer	2421A00526
■ - 85662A	Hewlett-Packard	Analyzer Display	2403A07352
■ - 85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00209
■ - 8449B	Hewlett-Packard	Preamplifier	3008A00320
■ - 3115	Electro-Mechanics	Double Ridge Guide Horn	3810

The *ANTENNA TERMINAL DISTURBANCE VOLTAGE* in the frequency range 30 MHz - 1,000 MHz were performed.

- - Darby Test Site (Open Area Test Site)
- - Laboratory
- -
- -

■ - Test not applicable

Model Number	Manufacturer	Description	Serial Number
□ - 2F9-3C4-3C5	Wavecom	UHF PAL TV Modulator	185879
□ - 2F1-3C4-3C5	Wavecom	VHF PAL TV Modulator	157728
□ - A-8000	IFR	Spectrum Analyzer	1306
□ - 8648B	Hewlett-Packard	Signal Generator	3623A01433
□ - 8648B	Hewlett-Packard	Signal Generator	3623A01477
□ - LMV-182A	Leader	RMS Milli-Voltmeter	8010091
□ - 3202	Krhon-Hite	Active filter	5899
□ - FMT115	Leaming	FM Modulator	NONE
□ - 371	UDT	Optical power meter	06657
□ - TSG95	Tektronix	PAL video / Audio generator	B028883
□ -			

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Equipment Under Test (EUT) Test Operation Mode - Emission tests :

The device under test was operated under the following conditions during emissions testing:

- Standby
- Test program (H - Pattern)
- Test program (color bar)
- Test program (customer specific)
- Practice operation
- Normal Operating Mode
-

Configuration of the device under test:

- See System Under Test Information in Appendix B

Rationale for EUT setup / configuration:

ANSI C63.4

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Emission Test Results:

Conducted emissions 150 kHz - 30 MHz

The requirements are - MET - NOT MET
Minimum limit margin 7.0 dB at 0.150 MHz
Remarks: Against Average Limit

Radiated emissions (magnetic field) 10 kHz - 30 MHz

The requirements are - MET - NOT MET
Minimum limit margin dB at MHz
Remarks:

Radiated emissions (electric field) 30 MHz - 1000 MHz

The requirements are - MET - NOT MET
Minimum limit margin 0.2 dB at 107.5 MHz
Remarks: Measured with the Mobile Docking configuration

Interference Power at the mains and interface cables 30 MHz - 300 MHz

The requirements are - MET - NOT MET
Minimum limit margin dB at MHz
Remarks:

Radiated emissions 1 GHz - 1.08 GHz

The requirements are - MET - NOT MET
Minimum limit margin >10 dB at all GHz
Remarks:

Antenna Terminal Disturbance Voltage 30 MHz - 1,000 MHz

The requirements are - MET - NOT MET
Minimum limit margin dB at MHz
Remarks:

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GENERAL REMARKS:

The EUT's were tested in (3) orthogonal planes.

Measurements were made up to the tenth harmonic of the highest frequency transmitted.

There are (2) separate configurations that were tested.

(1) Home installation uses home style antenna and "home style" docking cradle

(2) Mobile installation uses vehicle style antenna and "vehicle style" docking cradle

The EUT transmits at 200 KHz intervals starting at 88.1 MHz and ending at 107.9 MHz.

We test home and mobile configurations at 88.7, 98.3 & 107.5 MHz. Data is reported for both configurations..

SUMMARY:

The requirements according to the technical regulations are

- met

- **not** met.

The device under test does

- fulfill the general approval requirements mentioned on page 3.

- **not** fulfill the general approval requirements mentioned on page 3.

Testing Start Date August 31, 2005

Testing End Date: August 31, 2005

- PRODUCT SAFETY ENGINEERING INC -

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Test-setup photo(s):
Conducted emission 450/150 kHz - 30 MHz

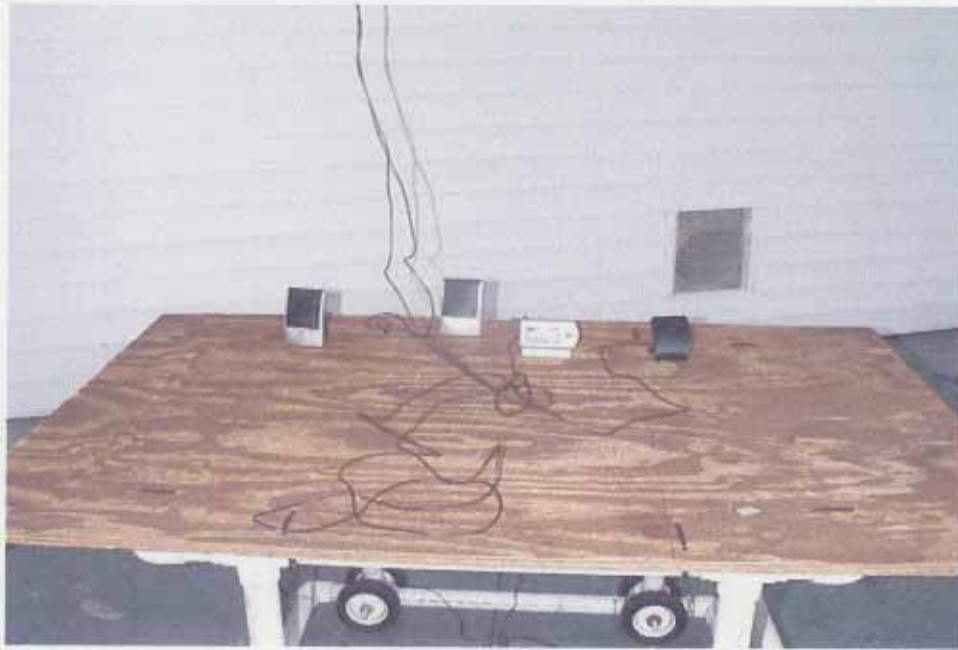


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Test-setup photo(s):
Radiated emission 30 MHz - 1000 MHz



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APPENDIX

A

Test Equipment Calibration Information & Test Data Sheets

TEST EQUIPMENT CALIBRATION INFORMATION

Manufacturer	Model	Description	Serial Number	Cal Due
Hewlett Packard	8566B	Spectrum Analyzer	2421A00526	07/18/06
Hewlett Packard	85662A	Display	2403A07352	07/18/06
Hewlett Packard	85650A	Quasi-Peak Adapter	2043A00209	07/18/06
Hewlett Packard	8447D	Preamp 0.1 - 1,000 MHz	2944A06832	12/13/05
Hewlett Packard	8568B	Spectrum Analyzer	2407A03213	08/03/06
Hewlett Packard	85662A	Display	2340A05806	08/03/06
Hewlett Packard	85650A	Quasi-Peak Adapter	2043A00358	08/03/06
Hewlett Packard	8447D	Preamp 0.1 - 1,000 MHz	2944A06901	08/03/06
Hewlett Packard	8447D	Preamp 0.1 - 1,000 MHz	1937A03247	08/03/06
Hewlett Packard	8449B	Preamp 1 - 26.5 GHz	3008A00320	12/13/05
Hewlett Packard	8648B	Signal Generator	3443U00312	05/26/06
Hewlett Packard	8672A	Signal Generator	2211A02426	12/13/05
Eaton	96005	Log Periodic Antenna	1099	01/26/06
Electro-Metrics	LPA 30	Log Periodic Antenna	2280	01/11/06
Electro-Metrics	BIA 30	Biconical Antenna	3852	01/11/06
Electro-Metrics	BIA 25	Biconical Antenna	4283	01/27/06
Electro-Mechanics	3115	Double Ridge Guide Ant.	3810	11/25/05
Electro-Metrics	ALR30M	Magnetic Loop Antenna	824	01/10/06
Solar	8012	LISN	924840	03/10/06
Solar	8028	LISN	829012/809022	12/15/05
Solar	8028	LISN	903725/903726	12/15/05
Schwartzbeck	MDS-21	Absorbing Clamp	02581	12/09/05
Leader	LFG1310	Function Generator	8060233	05/26/06
Electro-Metrics	EMC-30	EMI Receiver	191	05/26/06
Antenna Research	ALA-130/A	Loop Antenna	106	06/02/06
Radio Shack	63-867	Temp/Hygrometer	N/A	05/27/06
Radio Shack	63-867A	Temp/Hygrometer	N/A	05/27/06

PRODUCT EMISSIONS

PRODUCT SAFETY ENGINEERING

Data File: XM XPRESS MOBILE FCC-B 8-31-2005

No	EMISSION FREQUENCY MHz	SPEC LIMIT dBuV/m	MEASUREMENTS			MODE	SITE		CORR FACTOR dB	COMMENTS
			ABS	dLIM dB	POL		HGT cm	AZM deg		
1	88.717	48.0	43.4	-4.7	PK	V	100	315	-19.2	
2	98.295	48.0	45.8	-2.2	QP	V	100	315	-16.2	
3	107.474	48.0	47.8	-0.2	QP	V	100	315	-14.8	
4	177.402	43.5	28.1	-15.4	PK	V	100	1	-10.2	
5	196.601	43.5	29.5	-14.0	PK	V	100	1	-8.5	
6	215.000	43.5	19.4	-24.1	PK	H	200	180	-14.7	
7	266.100	46.0	23.2	-22.8	PK	H	200	1	-12.1	
8	294.900	46.0	20.9	-25.1	PK	H	200	1	-10.6	
9	322.503	46.0	24.0	-22.0	PK	H	200	1	-10.4	
10	354.803	46.0	21.0	-25.0	PK	H	200	1	-10.5	
11	392.703	46.0	18.0	-28.0	PK	H	200	1	-9.7	
12	429.386	46.0	22.1	-23.9	PK	H	200	1	-9.1	
13	443.500	46.0	17.6	-28.5	PK	H	200	1	-8.8	
14	491.386	46.0	24.5	-21.5	PK	H	200	1	-7.9	
15	532.200	46.0	16.8	-29.2	PK	H	200	1	-7.3	
16	537.500	46.0	19.5	-26.5	PK	H	200	1	-7.2	
17	589.799	46.0	22.6	-23.4	PK	H	200	1	-6.4	
18	620.900	46.0	20.1	-25.9	PK	H	200	1	-5.6	
19	644.955	46.0	23.4	-22.6	PK	H	200	1	-4.9	
20	688.100	46.0	27.1	-18.9	PK	H	200	1	-3.8	
21	709.600	46.0	22.6	-23.4	PK	H	200	1	-3.4	
22	752.558	46.0	25.5	-20.5	PK	H	200	1	-3.1	
23	786.428	46.0	25.9	-20.1	PK	H	200	1	-2.8	
24	798.293	46.0	25.9	-20.1	PK	H	200	1	-2.7	
25	860.000	46.0	28.6	-17.4	PK	H	200	1	-0.9	
26	884.700	46.0	26.3	-19.7	PK	H	200	1	-0.3	
27	887.000	46.0	30.3	-15.7	PK	H	200	1	-0.2	
28	967.500	54.0	25.5	-28.6	PK	H	200	1	1.	
29	983.000	54.0	29.3	-24.7	PK	H	200	1	1.3	
30	1000.00	54.0	27.5	-26.5	PK	H	200	1	1.6	Mkr @ 1075 MHz

A3

PRODUCT EMISSIONS

PRODUCT SAFETY ENGINEERING

Data File: XM XPRESS HOME FCC-B 8-31-2005

No	EMISSION FREQUENCY MHz	SPEC LIMIT dBuV/m	MEASUREMENTS			POL	SITE		CORR FACTOR dB	COMMENTS
			ABS	dLIM dB	MODE		HGT cm	AZM deg		
1	88.714	48.0	42.0	-6.1	PK	V	100	1	-19.2	
2	98.309	48.0	39.1	-8.9	QP	V	100	1	-16.2	
3	107.498	48.0	42.7	-5.3	QP	V	100	1	-14.8	
4	177.428	43.5	27.3	-16.2	PK	V	100	1	-10.2	
5	196.602	43.5	28.7	-14.8	PK	V	100	1	-8.5	
6	215.000	43.5	27.3	-16.2	PK	H	200	315	-13.8	
7	266.099	46.0	27.6	-18.4	PK	H	200	315	-12.1	
8	294.900	46.0	21.2	-24.8	PK	H	200	315	-10.6	
9	322.503	46.0	15.1	-30.9	PK	H	200	315	-10.4	
10	354.814	46.0	17.7	-28.3	PK	H	200	315	-10.5	
11	392.703	46.0	18.1	-27.9	PK	H	200	315	-9.7	
12	429.387	46.0	19.9	-26.1	PK	H	200	315	-9.1	
13	443.500	46.0	18.5	-27.6	PK	H	200	315	-8.8	
14	491.386	46.0	24.4	-21.6	PK	H	200	315	-7.9	
15	532.200	46.0	30.8	-15.2	PK	H	200	315	-7.3	
16	537.500	46.0	21.9	-24.1	PK	H	200	315	-7.2	
17	589.799	46.0	19.9	-26.1	PK	H	200	315	-6.4	
18	620.900	46.0	20.8	-25.2	PK	H	200	315	-5.6	
19	644.955	46.0	19.8	-26.2	PK	H	200	315	-4.9	
20	688.100	46.0	28.9	-17.1	PK	H	200	315	-3.8	
21	709.600	46.0	22.6	-23.4	PK	H	200	315	-3.4	
22	752.558	46.0	22.9	-23.1	PK	H	200	315	-3.1	
23	786.424	46.0	26.0	-20.0	PK	H	200	315	-2.8	
24	798.297	46.0	25.7	-20.3	PK	H	200	315	-2.7	
25	860.000	46.0	27.1	-18.9	PK	H	200	315	-0.9	
26	884.700	46.0	24.8	-21.2	PK	H	200	315	-0.3	
27	887.000	46.0	28.3	-17.7	PK	H	200	315	-0.2	
28	967.488	54.0	28.6	-25.4	PK	H	200	315	1.	
29	983.015	54.0	29.7	-24.3	PK	H	200	315	1.3	
30	1000.00	54.0	27.7	-26.3	PK	H	200	315	1.6	Mkr @ 1075 MHz

A4

Product Safety Engineering

XM

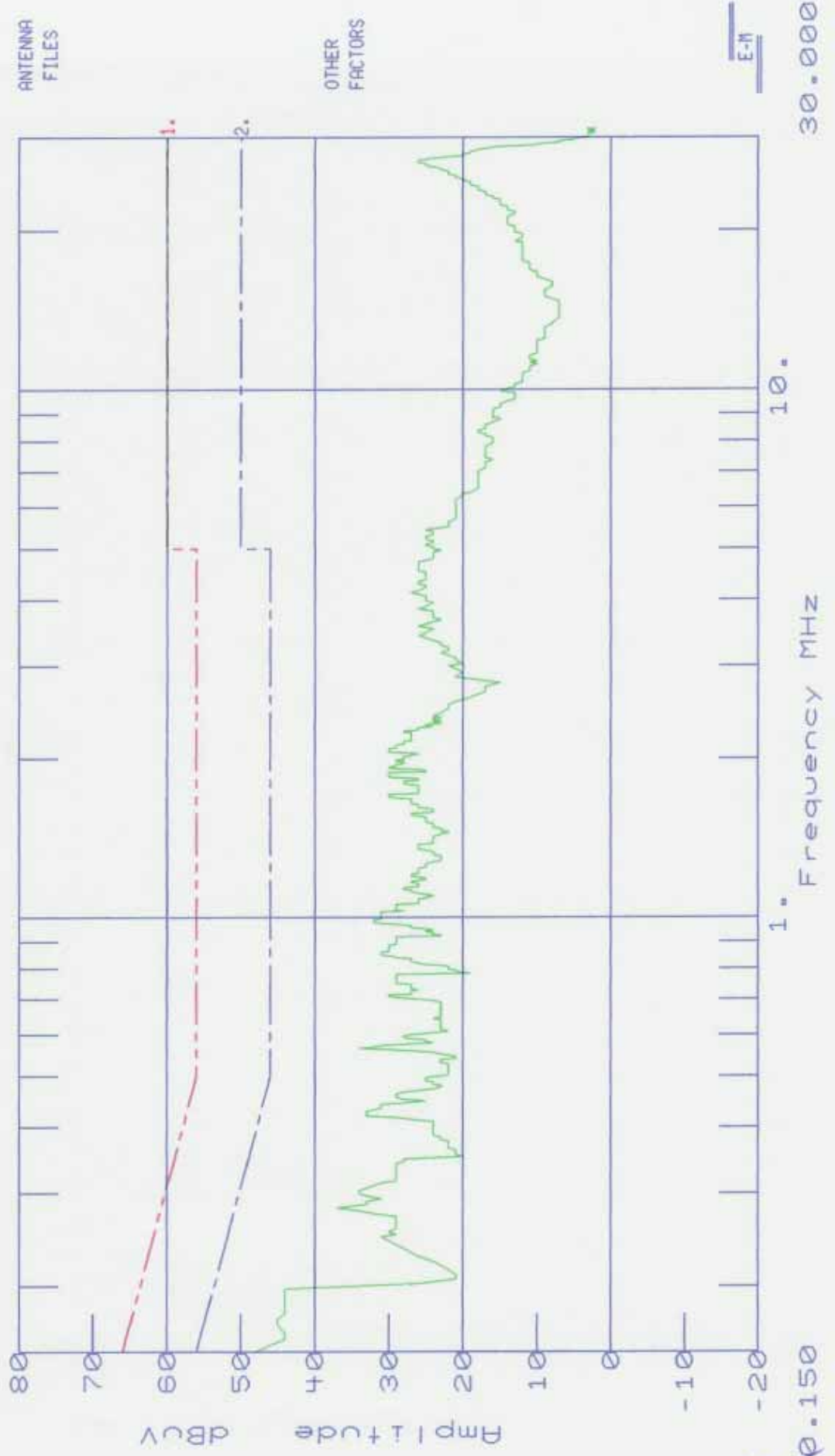
Date : 08/31/05
 Technician : JACK GARNER
 Test Method : EN55022 CLASS B
 Equipment : XPRESS
 Mode of Op. : NORMAL
 Serial No. : NONE

Time : 15:16:43.15
 Test Equip. : EMC-30
 Test Number : 1
 Sensor Loc. : LINE
 Sensor Pol. :
 Ext. Atten. : 0 dB

EMC-30 SETTINGS
 Detector : QuasiPeak
 Bandwidth : CISPR
 Dump/Dwell : IN/A
 RF Atten. : 10 dB
 IF Atten. : 10 dB

SPECS
 1) CISPR 22 Quasi Peak
 2) CISPR 22 AVG
 3)
 4)

Comment : 120 VAC / 60 HZ



TEST TITLE:XM

DATA FILE :XM_L.D30

Amplitude Units : dBuV

Threshold -10 dB

PAGE 1

Freq.(MHz)

0.1500

Freq(MHz)	Amp	C22BQP.S30 vs Spec(dB)	C22BAVG.S30 vs Spec(dB)
0.1500	48.0		-8.000 *
0.1542	46.0		-9.771 *
0.1730	45.0		-9.815 *
0.1933	44.0		-9.894 *
0.1975	44.0		-9.715 *

AG

Product Safety Engineering

XM

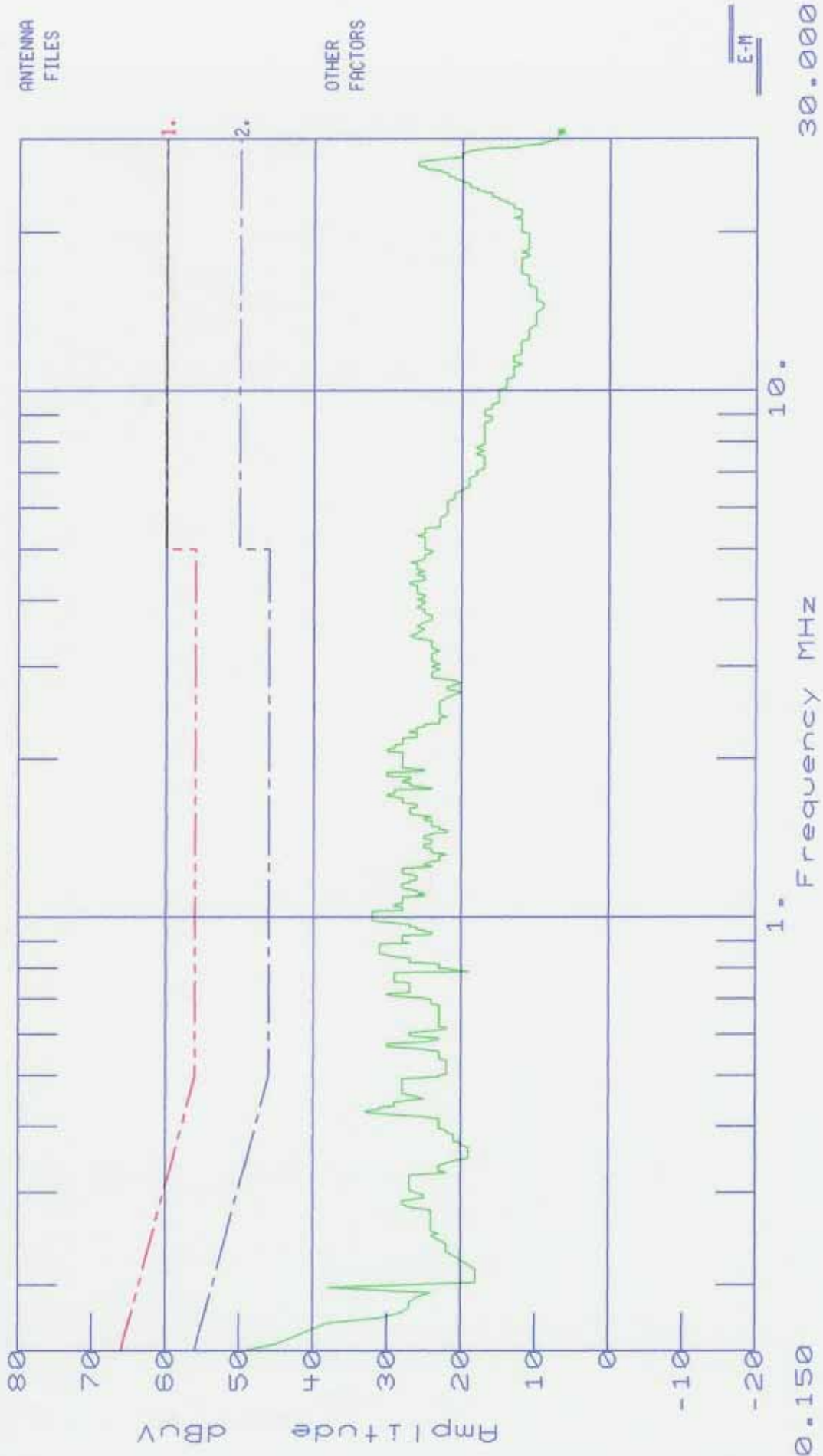
Date : 08/31/05
 Technician : JACK GARNER
 Test Method : EN55022 CLASS B
 Equipment : XPRESS
 Mode of Op. : NORMAL
 Serial No. : NONE

Time : 15:31:19.21
 Test Equip. : EMC-30
 Test Number : 1
 Sensor Loc. : NEUTRAL
 Sensor Pol. :
 Ext. Atten. : 10 dB

EMC-30 SETTINGS
 Detector : QuasiPeak
 Bandwidth : CISPR
 Dump/Dwell : IN/A
 RF Atten. : 10 dB
 IF Atten. : 10 dB

SPECS
 1) CISPR 22 Quasi Peak
 2) CISPR 22 AVG
 3)
 4)

Comment : 120 VAC / 60 HZ



A7

0.150

1. Frequency MHz

10.

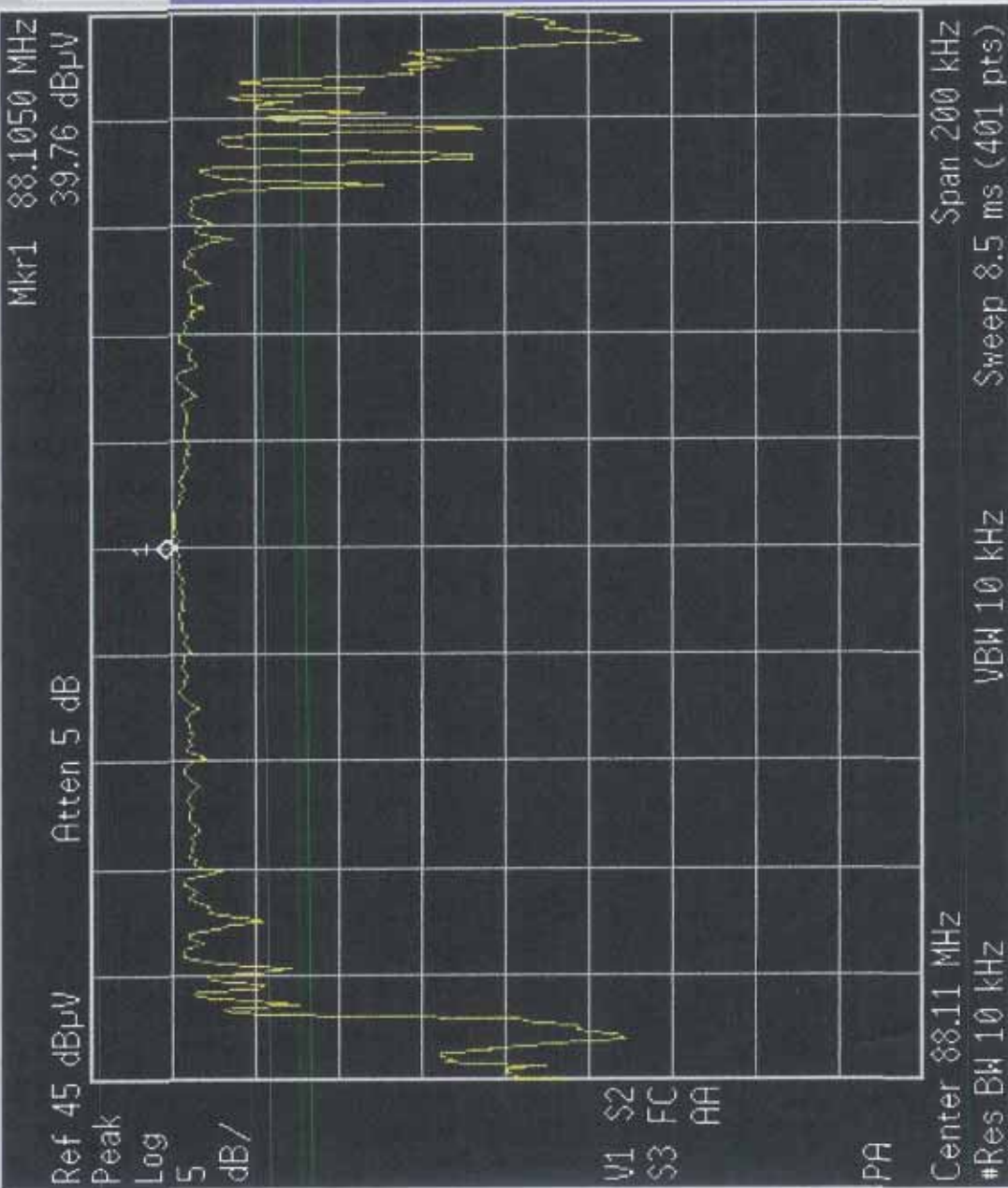
30.000

E-N

TEST TITLE:XM		PAGE 1
DATA FILE :XM_N.D30		Freq.(MHz)
Amplitude Units : dBuV	Threshold -10 dB	0.1500

Freq(MHz)	Amp	C22BQP.S30 vs Spec(dB)	C22BAVG.S30 vs Spec(dB)
0.1500	49.0		-7.000 *

AG



Trace/View

Trace

1 2 3

Clear Write

Max Hold

Min Hold

View

Blank

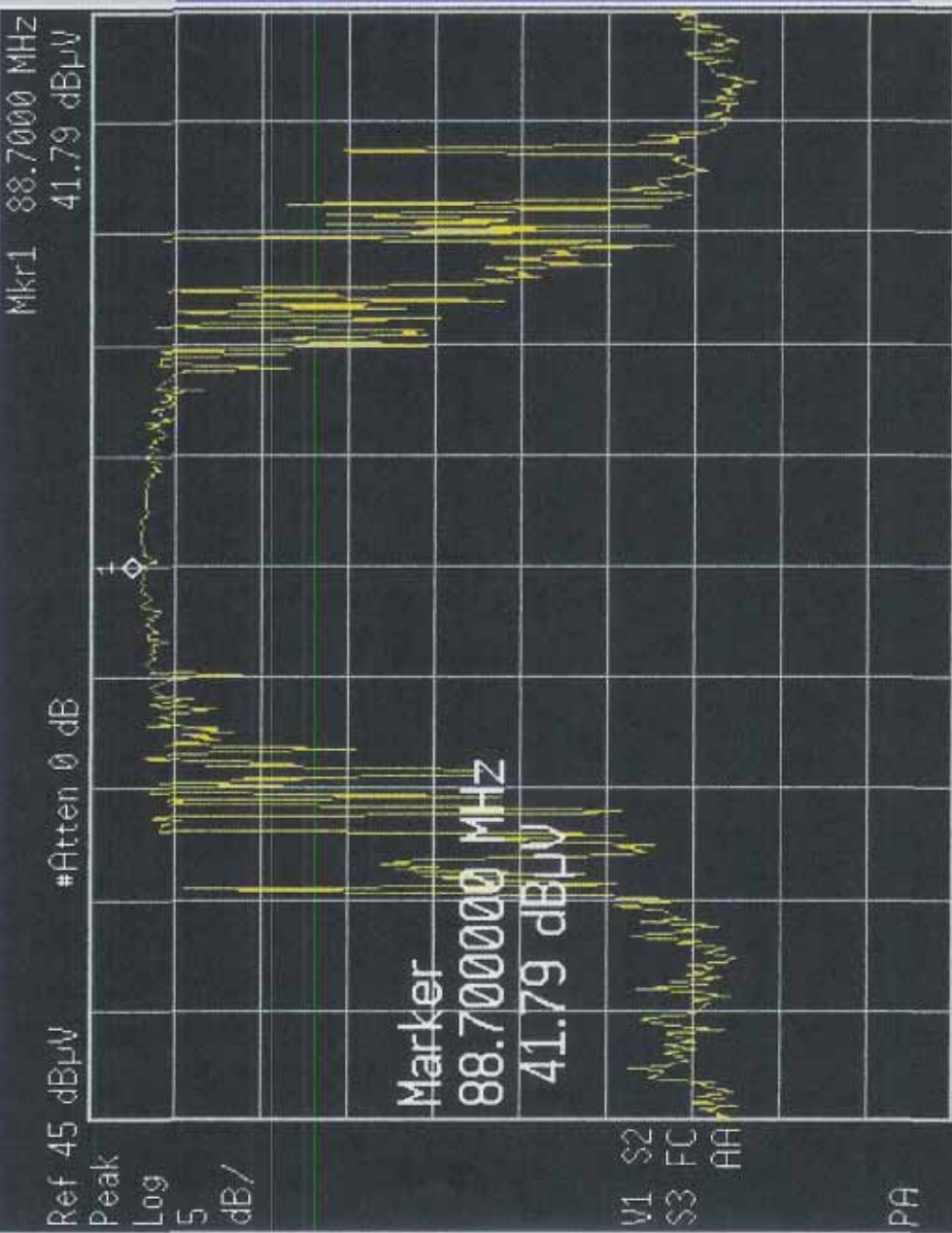
More

1 of 2

A:\XM5.GIF file saved

Ag

Agilent 09:40:03 Sep 8, 2005



Marker

Select Marker
1 2 3 4

Normal

Delta

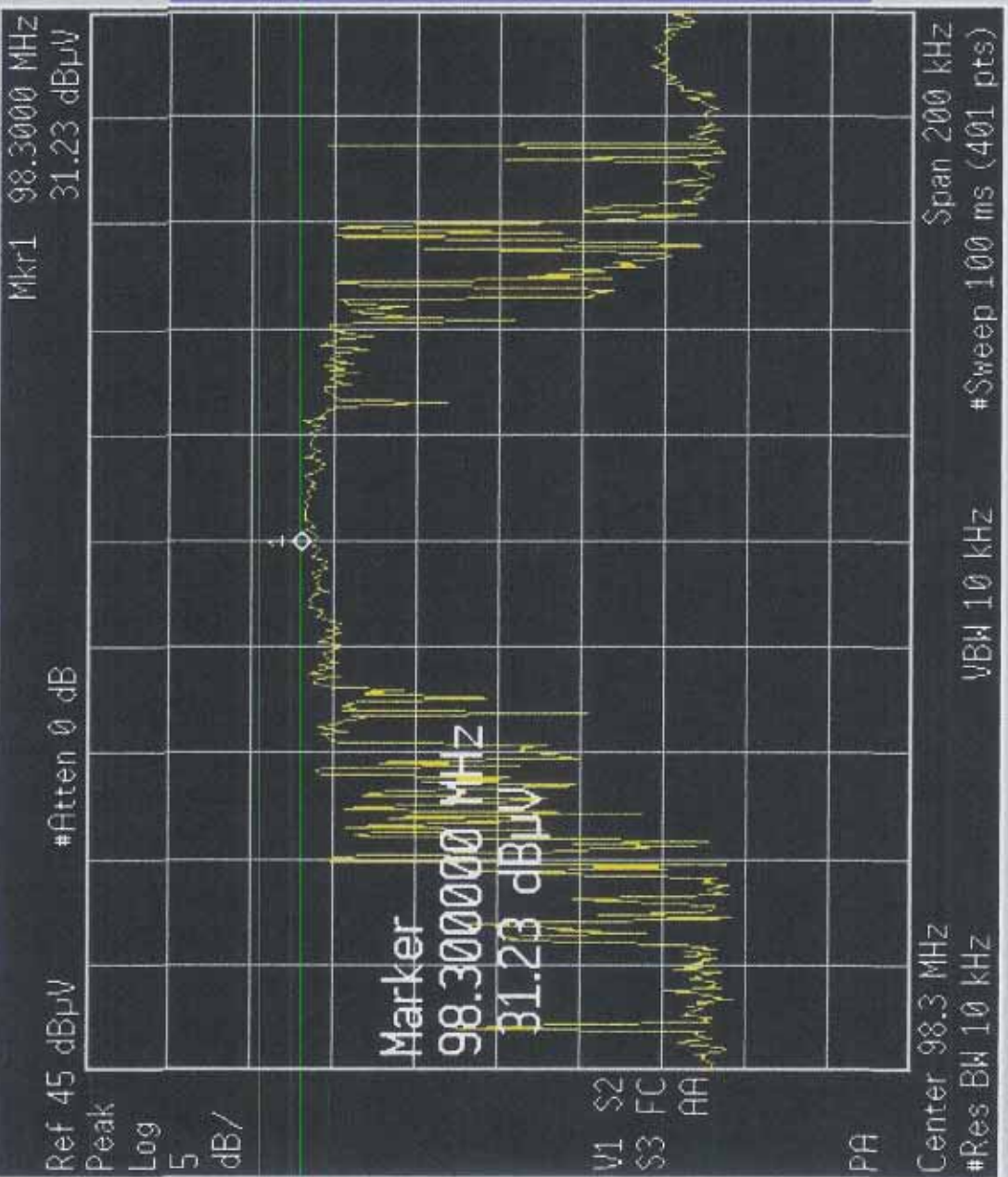
Delta Pair
(Tracking Ref)
Ref Delta

Span Pair
Span Center

Off

More
1 of 2

ATU



Marker

Select Marker 1 2 3 4

Normal

Delta

Delta Pair (Tracking Ref) Ref Delta

Span Pair Center

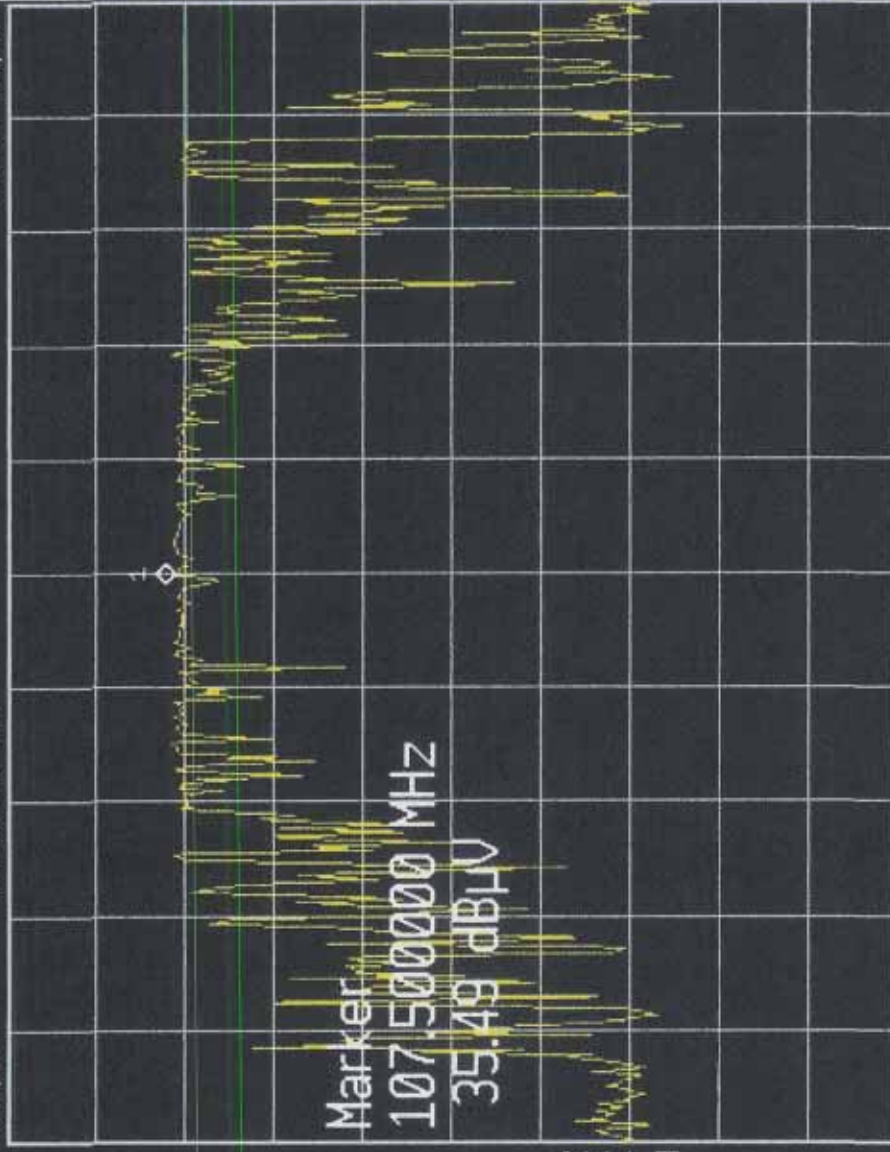
Off

More 1 of 2

Am

Agilent 09:41:38 Sep 8, 2005

Ref 45 dBµV #Atten 0 dB Mkr1 107.5000 MHz 35.49 dBµV



Peak Log 5 dB/

V1 S2 S3 FC AA

PA

Center 107.5 MHz Span 200 kHz #Res BW 10 kHz VBW 10 kHz #Sweep 100 ms (401 pts)

Marker

Select Marker 1 2 3 4

Normal

Delta

Delta Pair (Tracking Ref) Ref Delta

Span Pair Span Center

Off

More 1 of 2

A12

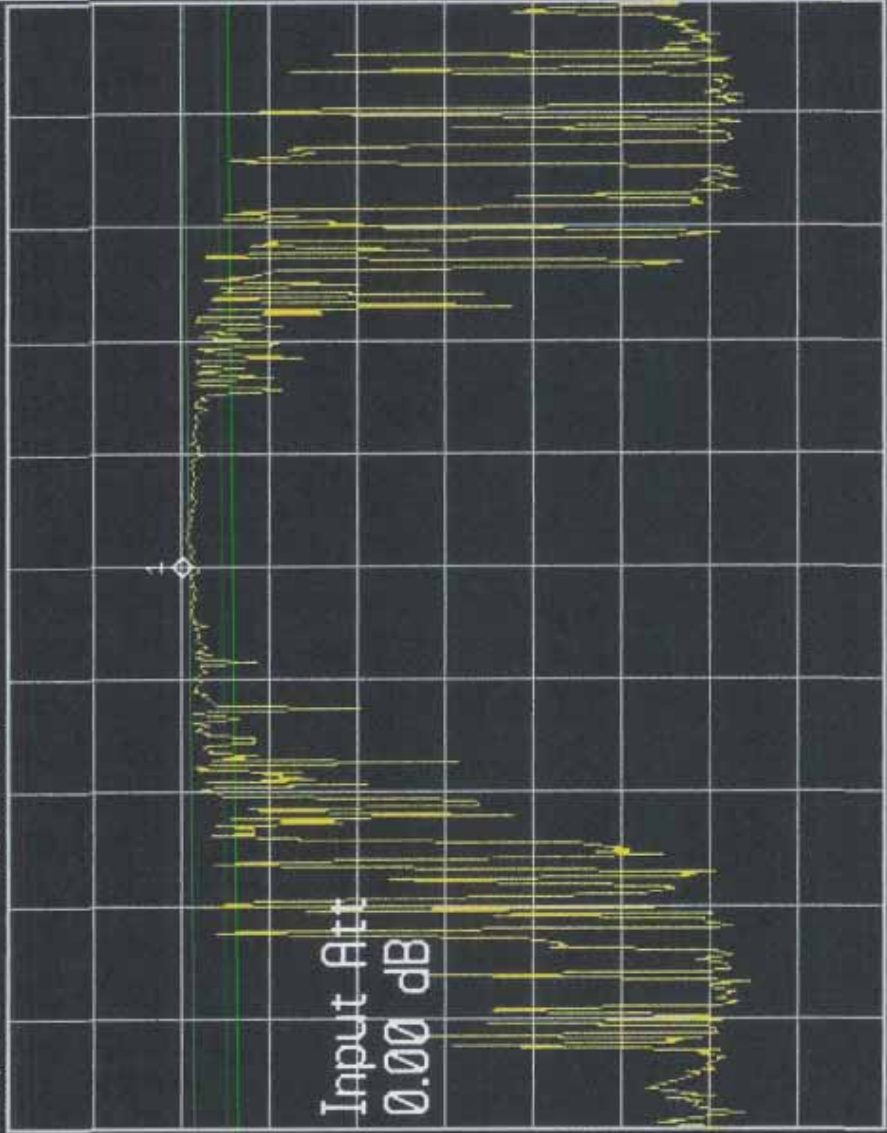
Ref 45 dBuV

#Atten 0 dB

Mkr1 107.9000 MHz

34.29 dBuV

Peak
Log
5
dB/



Input Att
0.00 dB

V1 S2
S3 FC
AA

PA

Center 107.9 MHz
#Res BW 10 kHz

Span 200 kHz
VBW 10 kHz #Sweep 100 ms (401 pts)

Trace/View

Trace
1 2 3

Clear Write

Max Hold

Min Hold

View

Blank

More
1 of 2

A13

APPENDIX

B

System Under Test Description

SYSTEM COMPONENTS

DEVICE TYPE: EUT, XM RADIO MODEL# 136-4040
SATELLITE RECEIVER/ FM TRANSMITTER

DEVICE TYPE: EUT, XM RADIO MOBILE DOCK
18950410123 P4

DEVICE TYPE: EUT, XM RADIO HOME DOCK
19050120051 P4

DEVICE TYPE: EUT, XM RADIO AC POWER SUPPLY, MODEL# SMPS5V2A-XM
(Home Use)

DEVICE TYPE: EUT, XM RADIO SATELLITE RADIO ANTENNA (MOBILE USE)

DEVICE TYPE: EUT, XM RADIO SATELLITE RADIO ANTENNA (HOME USE)

INTERFACE CABLES

HOME

DEVICE TYPE: EUT DOCKING STATION
SHIELD: YES, COAX
LENGTH: 7 METERS
CONNECTOR TYPE: DEDICATED TO COAXIAL PLUG (ANTENNA)
PORT: ANTENNA IN ON HOME DOCKING STATION

DEVICE TYPE: EUT DOCKING STATION
SHIELD: YES
LENGTH: 1 METER BUNDLE
CONNECTOR TYPE: RCA TO MINI (SPEAKERS)
PORT: LINE OUT ON HOME DOCKING STATION

MOBILE

DEVICE TYPE: EUT DOCKING STATION
SHIELD: YES, COAX
LENGTH: 7 METERS
CONNECTOR TYPE: DEDICATED TO COAXIAL PLUG (ANTENNA)
PORT: ANTENNA IN ON MOBILE DOCKING STATION

DEVICE TYPE: EUT DOCKING STATION
SHIELD: YES
LENGTH: 1 METER BUNDLE
CONNECTOR TYPE: RCA TO MINI (SPEAKERS)
PORT: LINE OUT ON MOBILE DOCKING STATION

DEVICE TYPE: EUT DOCKING STATION
SHIELD: YES
LENGTH: 1 METER BUNDLE
CONNECTOR TYPE: RCA TO MINI (UNTERMINATED)
PORT: LINE IN ON MOBILE DOCKING STATION

B3 of B4

AC LINE CORDS

HOME DOCK

DEVICE TYPE: POWER SUPPLY (AC SIDE)

SHIELD: NO

LENGTH: N/A

CONNECTOR TYPE: 2 PIN POLARIZED WALL PLUG

DEVICE TYPE: POWER SUPPLY (DC SIDE)

SHIELD: NO

LENGTH: 8 FEET

CONNECTOR TYPE: DEDICATED TO MINI COAXIAL PLUG TO EITHER DOCK

APPENDIX

C

Measurement Protocol

Page C1 of C2

Product Safety Engineering, Inc 12955 Bellamy Brothers Blvd. Dade City, FL 33525
Tel (352) 588-2209 Fax (352) 588-2544

Page C2 of C2

Product Safety Engineering, Inc 12955 Bellamy Brothers Blvd. Dade City, FL 33525
Tel (352) 588-2209 Fax (352) 588-2544

The test methodology followed during the collection of the data included within this technical report was ANSI C63.4:1992.

The EUT was powered with (120) VAC / (60) Hz during the collection of data included within.

The data is compared to the FCC Part 15 Class B limits.

The "EMI" instrumentation is capable of calculating the final emission level based on the following formula:

Level at the receiver (dB μ V) + Antenna Correction Factor (dB/M) + Cable Loss (dB) - Preamp Gain (dB) = Actual Level in dB μ V/M.

The sample calculation below is based on the actual test data collected:

Observed Level		58.5	dB μ V	
ACF	+	13.7	dB/M	
Cable Loss	+	1.6	dB	
Preamp Gain	-	<u>26.0</u>	dB	
Actual Level		47.8	dB μ V/M	@ 107.5 MHz

Please have a company official review this report and sign.
