FCC PART 15, SUBPART C SECTION 15.239
TEST REPORT

for

TUNECAST AUTO

MODEL: F8J055

Prepared for

BELKIN INTERNATIONAL, INC.
12045 EAST WATERFRONT DRIVE
PLAYA VISTA, CA 90094

Prepared by:_____ ___

MATT HARRISON

Approved by:_____

JOSH HANSEN

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LAKE FOREST, CA 92630
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DATE: SEPTEMBER 24, 2013

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
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1	Plot Map And Layout of 3 Meter Radiated Site

GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product endorsement by NVLAP, NIST or any other agency of the U.S. Government.

Device Tested:	TuneCast Auto Model: F8J055
Product Description:	See Expository Statement
Modifications:	The EUT was not modified.
Manufacturer:	Belkin International, Inc. 12045 East Waterfront Drive Playa Vista, CA 90094
Test Date:	September 24, 2013
Test Specifications:	CFR Title 47, Part 15 Subpart C, Sections 15.205, 15.209 and 15.239
Test Procedure:	ANSI C63.10 & ANSI C63.4
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Intentional Radiated RF Emissions, 10 kHz – 30 MHz & 30 - 1080 MHz	Complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.205, 15.209, and 15.239.
2	Unintentional & Receiver Radiated Emissions, 30 - 1000 MHz	Complies with the limits of CFR Title 47, Part 15, Subpart B, section 15.109
3	-20 dB Bandwidth of the Fundamental	Complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.239.
4	Peak Radiated EMI	Complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.239.
5	Restricted Bands and Band Edges	Complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.205, and 15.239.

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the TuneCast Auto Model: F8J055. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4 and ANSI C63.10. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the specification limits defined by CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.239.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 20621 Pascal Way, Lake Forest, California 92630.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Belkin International, inc.

Daniel Wesey	Compliance Engineer

Compatible Electronics, Inc.

Matt Harrison	Test Technician
Josh Hansen	Lab Manager
Jeff Klinger	Director of Engineering

2.4 Date Test Sample was Received

The test sample was received on September 24, 2013.

2.5 Disposition of the Test Sample

The sample has not yet been returned to Belkin International, Inc. as of the date of this test report.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
CLA	Cigar Lighter Adaptor
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
ANSI C63.4 2009	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.
ANSI C63.10 2009	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description Of Test Configuration - EMI

Setup and operation of the equipment under test.

Specifics of the EUT and Peripherals Tested

The TuneCast Auto, Model: F8J055 (EUT) was set up in a tabletop configuration. The EUT was connected to the mobile phone via LTG connector. The EUT was powered by a CLA receptacle connected to a 12VDC battery. The EUT was continuously transmitting during the test and being modulated by an audio source via LTG Connector. The EUT antenna is a wire soldered to the PCB.

The low, middle, and high channels were investigated in each mode of operation and the X, Y, and Z axis were investigated and the worst case orientation is the X-Axis.

The cables were moved to maximize the emissions. The final radiated data was taken in the above mode of operation. All initial investigations were performed with the EMI Receiver scanning the frequency range continuously.

4.1.1 Cable Construction and Termination

Cable 1

This is a 60 centimeter, unshielded, round cable connecting the EUT Display to the mobile phone. It is hardwired into the EUT and the other has a LTG connector at the mobile phone end.

Cable 2

This is a 60 centimeter, unshielded, round cable connecting the EUT Display to the EUT CLA Connector. It is hardwired into the both ends. There is a molded ferrite at the CLA end.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIALNUMBER	FCC ID
TUNECAST AUTO (EUT)	BELKIN INTERNATIONAL, INC.	F8J055	N/A	K7SF8J055
MOBILE PHONE IPHONE5	APPLE	IPHONE A1429	F2LJ989QF8H2	BCG-E2599A
12VDC BATTERY	N/A	N/A	N/A	N/A

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
GENERAL TEST EQUIPMENT USED FOR ALL RF EMISSIONS TESTS					
Computer	Compatible Electronics	N/A	N/A	N/A	N/A
EMI Receiver	Rohde & Schwarz	ESIB40	100219	9/19/2013	9/19/2014
RF RADIATED EMISSIONS TEST EQUIPMENT					
CombiLog Antenna	Com-Power	AC-220	25857	4/16/2013	4/16/2014
Horn Antenna	Com-Power	AH118	071225	7/3/2012	7/3/2014
Loop Antenna	Com-Power	AL-130	17085	1/29/2012	1/29/2015
Antenna Mast	Sunol Sciences Corporation	TWR 95-4	081309-3	N/A	N/A
Turntable	Sunol Sciences Corporation	FM2011VS	N/A	N/A	N/A
Mast and Turntable Controller	Sunol Sciences Corporation	SC104V	081309-1	N/A	N/A

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT, iPhone, and Cigarette Lighter Adapter receptacle were mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was placed in the center, and on the back edge of the table, in accordance with ANSI C63.10 and ANSI C63.4. The test site receive antenna distance was measured from the closest periphery of the EUT setup. Each accessory was placed 10 cm to either side of the EUT. The battery was placed on the ground, using an 80 cm length of wire to connect to a cigarette lighter adapter receptacle, which was mounted on the table.

The EUT and accessories were investigated for worst case placement; the above yielded the worst case configuration.

The EUT was not grounded.

7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 RF Emissions

7.1.1 Conducted Emissions Test

(This test was not performed)

The EUT is a DC powered device; therefore this test was not performed.

7.1.2 Radiated Emissions (Spurious and Harmonics) Test

The receiver was used as a measuring meter. The receiver was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the receiver records the highest measured reading over all the sweeps.

The frequencies above 1 GHz and the fundamental for the low, middle, and high channels were investigated with the built in average detector.

The measurement bandwidths and transducers used for the radiated emissions (Spurious) tests were:

No radiated emissions were found below 30MHz

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
9 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 1 GHz	100 kHz	CombiLog Antenna
1 GHz to 1.08 GHz	1 MHz	Horn Antenna

The Semi-Anechoic test site of Compatible Electronics, Inc, Lab R (Lake Forest), was used for all tests. This test sites are set up according to ANSI C63.10. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Final data was collected in the worst case configuration of the EUT (low, mid, and high channels). At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The loop antenna was also rotated in the horizontal and vertical axis in order to ensure accurate results.

7.1.3 Radiated Emissions (Spurious and Harmonics) Test (Continued)

The emissions from the EUT were investigated with the EUT while operated on each of three channels, 88.1MHz, 98.1MHz and 107.9MHz. The EUT was receiving a 0 dB encoded file from the audio source. This file represents maximum audio input level. The EUT was tested at a 3-meter test distance to obtain the final test data. The final qualification data sheets are located in Appendix E.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B Section 15.109; and CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.239. There were no emissions found below 30MHz

7.1.4 Peak Radiated EMI

The EUT was tested at a 3-meter test distance to obtain the final test data. The EUT was maximized to determine worst case. The EUT was receiving a 0 dB encoded file from the audio source. This file represents maximum audio input level. The resolution bandwidth was 100 kHz and video bandwidth 300 kHz. The final qualification data sheets are located in Appendix E. This data also shows compliance at the band edges.

Test Results:

The EUT complies with CFR Title 47 Part 15, Subpart C, Section 15.239.

7.2 Bandwidth of the Fundamental

The -20 dB bandwidth was checked using the EMI Receiver to see that the emissions were wholly within the 200 kHz band centered on the operating frequency. The RBW was set to 10 kHz and the VBW was set to 30 kHz. The low, mid, and high channels were investigated. Plots of the -20 dB bandwidth are located in Appendix E.

Test Results:

The EUT complies with the requirements of CFR Title 47, Part 15, Subpart C, section 15.239 (a) for the -20 dB bandwidth of the fundamental. The EUT has a -20 dB bandwidth that is wholly within the 200 kHz band centered on the operating frequency.

7.3 Restricted Bands and Band Edges

The band edges were checked using the EMI Receiver to see that the emissions was wholly within the permitted operating frequency range. The RBW was set to 100 kHz and the VBW was set to 300 kHz. The low and high band edges were investigated with the transmitter tuned to the lowest and highest channels respectively. Data of the band edges are located in Appendix E.

Test Results:

The EUT band edges comply with the requirements of CFR Title 47, Part 15, Subpart C, section 15.209 and 15.239 (c). The EUT emissions are wholly within the permitted operating frequency range.

8. CONCLUSIONS

The TuneCast Auto Model: F8J055 meets all of the specification limits defined in CFR Title 47, Part 15, Subpart B Section 15.109 for the digital portion; and the limits defined in Subpart C, sections 15.205, 15.209, and 15.239 for the transmitter portion.

APPENDIX A

LABORATORY RECOGNITIONS

LABORATORY ACCREDITATIONS AND RECOGNITIONS

For US, Canada, Australia/New Zealand, Taiwan and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025 an ISO 9002 equivalent. Please follow the link to the NIST site for each of our facilities NVLAP certificate and scope of accreditation.

Silverado/Lake Forest Division: http://ts.nist.gov/ts/htdocs/210/214/scopes/2005270.htm
Brea Division: http://ts.nist.gov/ts/htdocs/210/214/scopes/2005280.htm
Agoura Division: http://ts.nist.gov/ts/htdocs/210/214/scopes/2000630.htm

Compatible Electronics has been accredited by ANSI and appointed by the FCC to serve as a Telecommunications Certification Body (TCB). Compatible Electronics ANSI TCB listing can be found at: http://www.ansi.org/public/ca/ansi_cp.html

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for EMC under the US/EU Mutual Recognition Agreement (MRA). Compatible Electronics NIST US/EU CAB listing can be found at: http://ts.nist.gov/ts/htdocs/210/gsig/emc-cabs-mar02.pdf

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for Taiwan/BSMI under the US/APEC (Asia-Pacific Economic Cooperation) Mutual Recognition Agreement (MRA). Compatible Electronics NIST US/APEC CAB listing can be found at: http://ts.nist.gov/ts/htdocs/210/gsig/apec/bsmi-cabs-may02.pdf

Compatible Electronics has been validated by NEMKO against ISO/IEC 17025 under the NEMKO EMC Laboratory Authorization (ELA) program to all EN standards required by the European Union (EU) EMC Directive 89/336/EEC. Please follow the link to the Compatible Electronics' web site for each of our facilities NEMKO ELA certificate and scope of accreditation. http://www.celectronics.com/certs.htm

We are also certified/listed for IT products by the following country/agency:

Compatible Electronics VCCI listing can be found at:
http://www.vcci.or.jp/vcci_e/member/tekigo/setsubi_index_id.html

Just type "Compatible Electronics" into the Keyword search box.

Compatible Electronics FCC listing can be found at:
https://gullfoss2.fcc.gov/prod/oet/index_ie.html

Just type "Compatible Electronics" into the Test Firms search box.

Compatible Electronics IC listing can be found at:
http://spectrum.ic.gc.ca/~cert/labs/oats_lab_c_e.html

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

No modifications were made to the EUT.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

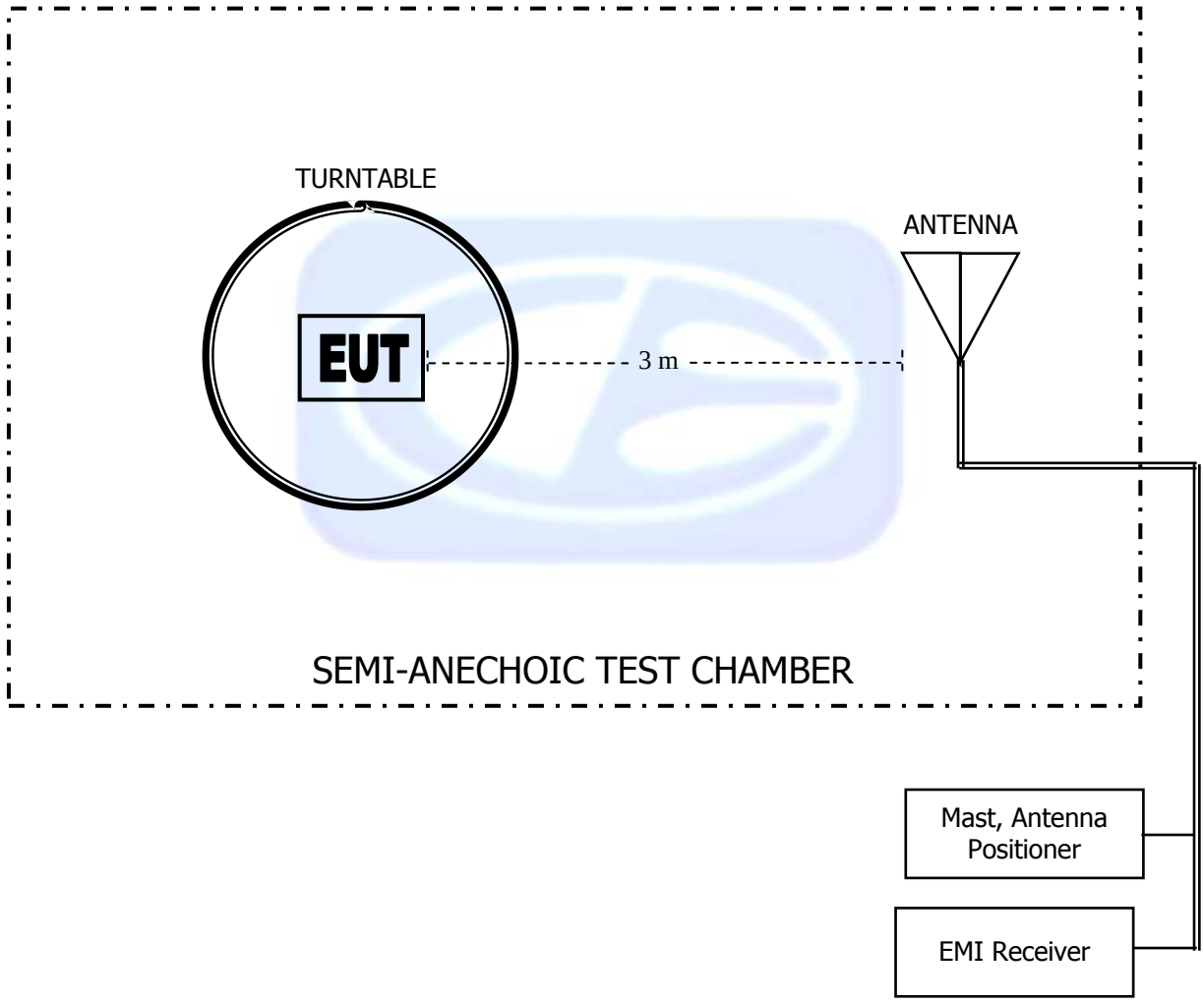
TuneCast Auto
Model: F8J055
S/N: None

There were no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

FIGURE 1: PLOT MAP & LAYOUT OF TEST SITE BELOW 1GHz



COM-POWER AL-130

LOOP ANTENNA

S/N: 17085

CALIBRATION DUE: JANUARY 29, 2015

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)	FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-40.70	10.80	**0.8**	-40.91	10.59
0.01	-40.50	11.00	**0.9**	-40.80	10.70
0.02	-40.70	10.80	**1.0**	-40.81	10.69
0.03	-40.10	11.40	**2.0**	-40.51	10.99
0.04	-40.50	11.00	**3.0**	-40.54	10.96
0.05	-41.10	10.40	**4.0**	-40.44	11.06
0.06	-41.00	10.50	**5.0**	-40.32	11.18
0.07	-41.10	10.40	**6.0**	-40.69	10.81
0.08	-41.10	10.40	**7.0**	-40.37	11.13
0.09	-41.20	10.30	**8.0**	-39.99	11.51
0.1	-41.20	10.30	**9.0**	-40.00	11.50
0.2	-41.40	10.10	**10.0**	-40.08	11.42
0.3	-41.30	10.20	**15.0**	-42.36	9.14
0.4	-41.20	10.30	**20.0**	-38.75	12.75
0.5	-41.40	10.10	**25.0**	-40.70	10.80
0.6	-41.40	10.10	**30.0**	-41.09	10.41
0.7	-41.20	10.30			

COM-POWER AC-220

LAB R - COMBILOG ANTENNA

S/N: 25857

CALIBRATION DUE: APRIL 16, 2014

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	17.8	**160**	8.3
35	18.4	**180**	9.4
40	19.2	**200**	9.0
45	17.2	**250**	12.0
50	17.2	**300**	13.4
60	13.5	**400**	15.0
70	8.9	**500**	17.3
80	6.0	**600**	17.8
90	7.1	**700**	20.0
100	8.0	**800**	20.5
120	9.2	**900**	20.8
140	7.5	**1000**	22.4

BACK VIEW

BELKIN INTERNATIONAL, INC.
TUNECAST AUTO
MODEL: F8J055
FCC SUBPART B AND C – RADIATED SPURIOUS EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

BELKIN INTERNATIONAL, INC.
TUNECAST AUTO
MODEL: F8J055
FCC SUBPART B AND C – RADIATED SPURIOUS EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

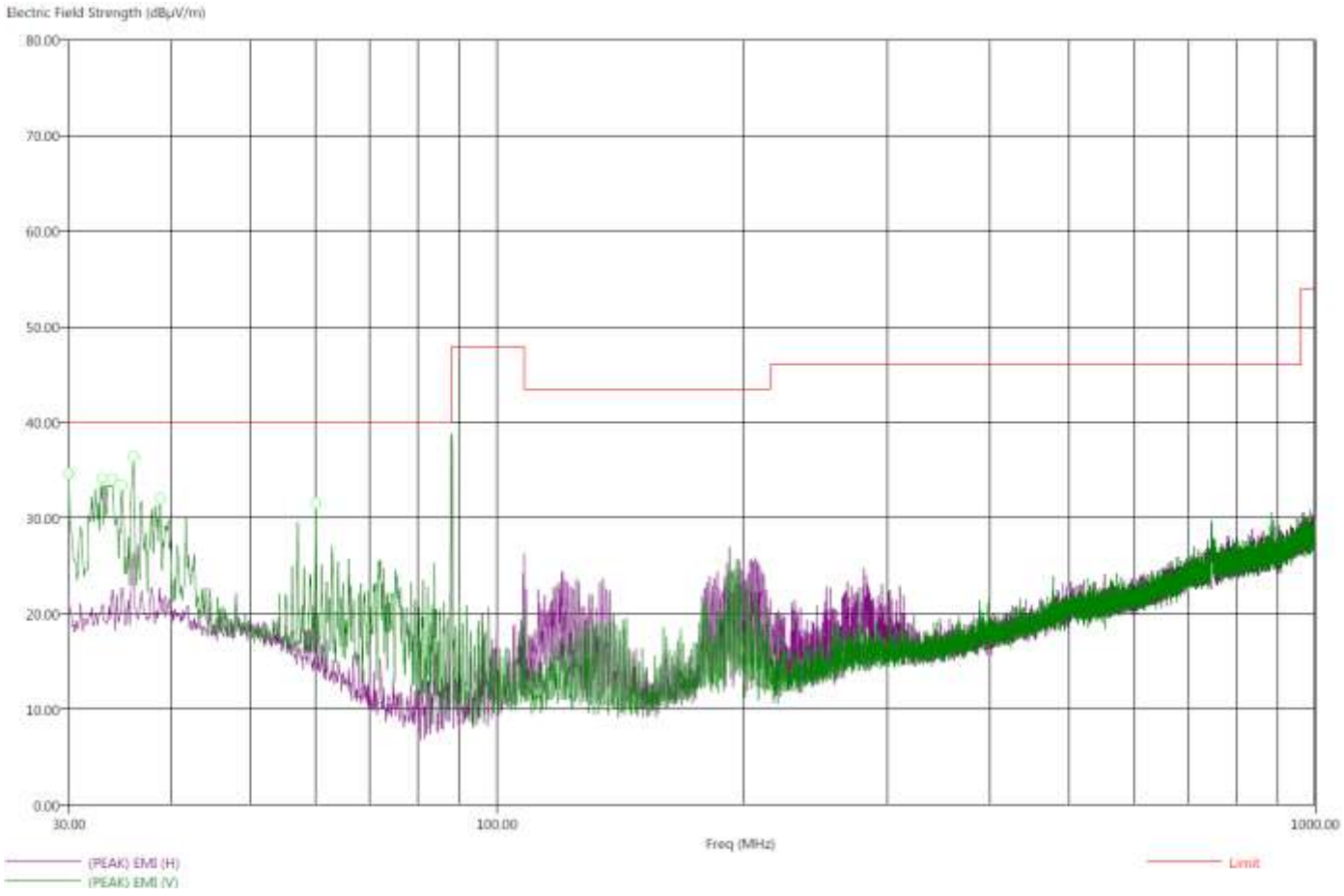
RADIATED EMISSIONS

SPURIOUS AND HARMONICS

DATA SHEETS

```
Title: FCC 15.209, 15.239                          9/24/2013 10:42:33 AM
File: Radiated Pre-Scan 30-1000Mhz_Lo.set          Sequence: Preliminary Scan
Operator: Matt Harrison
EUT Type: TuneCast. F8J055.
EUT Condition: Transmitting 88.1MHz.
Comments: Connected to 12V Battery and iPhone 5.
Temp: 72f
Hum: 47%
12VDC
```

Compatible Electronics, Inc. FAC-3 (LAB-R)



Note: No radiated emissions found between 0.01 & 30MHz or between 1000 and 1080MHz.

```
Title: FCC 15.209, 15.239                          9/24/2013 11:03:04 AM
File: Radiated Final 30-1000Mhz_Lo.set             Sequence: Final Measurements
Operator: Matt Harrison
EUT Type: TuneCast. F8J055.
EUT Condition: Transmitting 88.1MHz.
Comments: Connected to 12V Battery and iPhone 5.
Temp: 72f
Hum: 47%
12VDC
```

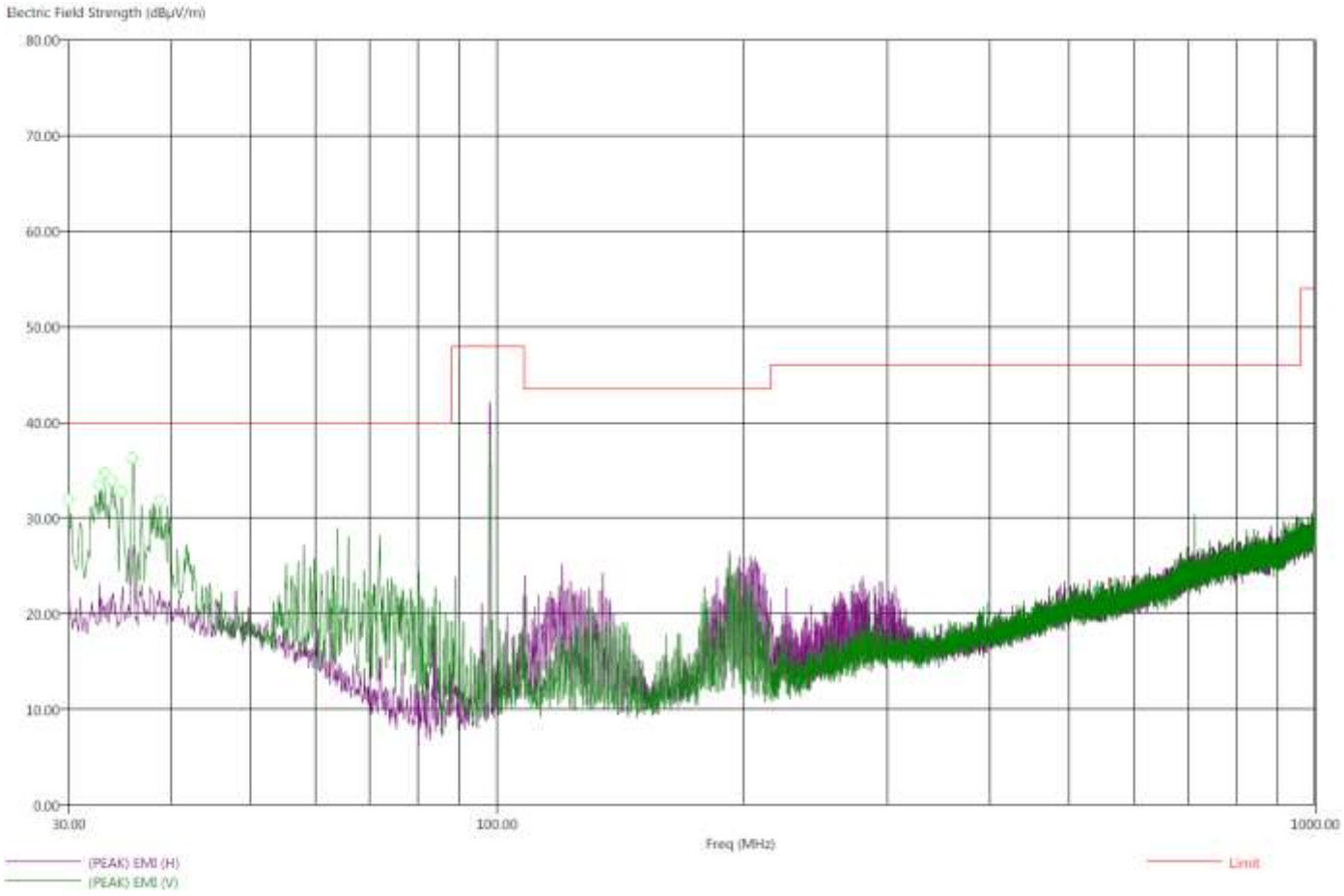
Compatible Electronics, Inc. FAC-3 (LAB-R)

Freq (MHz)	(QP) Margin (dB)	(QP) EMI (dBµV/m)	(PEAK) EMI (dBµV/m)	Limit (dBµV/m)	Pol	Ttbl Agl (deg)	Twr Ht (cm)
30.00	-11.78	28.22	32.60	40.00	V	168.00	155.91
33.00	-11.14	28.86	36.45	40.00	V	272.25	122.95
33.90	-9.63	30.37	36.59	40.00	V	63.00	107.31
34.80	-11.13	28.87	33.34	40.00	V	360.00	139.13
36.00	-4.71	35.29	38.33	40.00	V	123.75	135.91
38.80	-14.78	25.22	32.94	40.00	V	118.50	126.05
60.10	-16.68	23.32	32.99	40.00	V	224.25	100.02

Note: No radiated emissions found between 0.01 & 30MHz or between 1000 and 1080MHz.

```
Title: FCC 15.209, 15.239                          9/24/2013 11:20:04 AM
File: Radiated Pre-Scan 30-1000Mhz_Mid.set         Sequence: Preliminary Scan
Operator: Matt Harrison
EUT Type: TuneCast. F8J055.
EUT Condition: Transmitting 98.1MHz.
Comments: Connected to 12V Battery and iPhone 5.
Temp: 72f
Hum: 47%
12VDC
```

Compatible Electronics, Inc. FAC-3 (LAB-R)



Note: No radiated emissions found between 0.01 & 30MHz or between 1000 and 1080MHz.

```
Title: FCC 15.209, 15.239                          9/24/2013 11:41:13 AM
File: Radiated Final 30-1000Mhz_Mid.set            Sequence: Final Measurements
Operator: Matt Harrison
EUT Type: TuneCast. F8J055.
EUT Condition: Transmitting 98.1MHz.
Comments: Connected to 12V Battery and iPhone 5.
Temp: 72f
Hum: 47%
12VDC
```

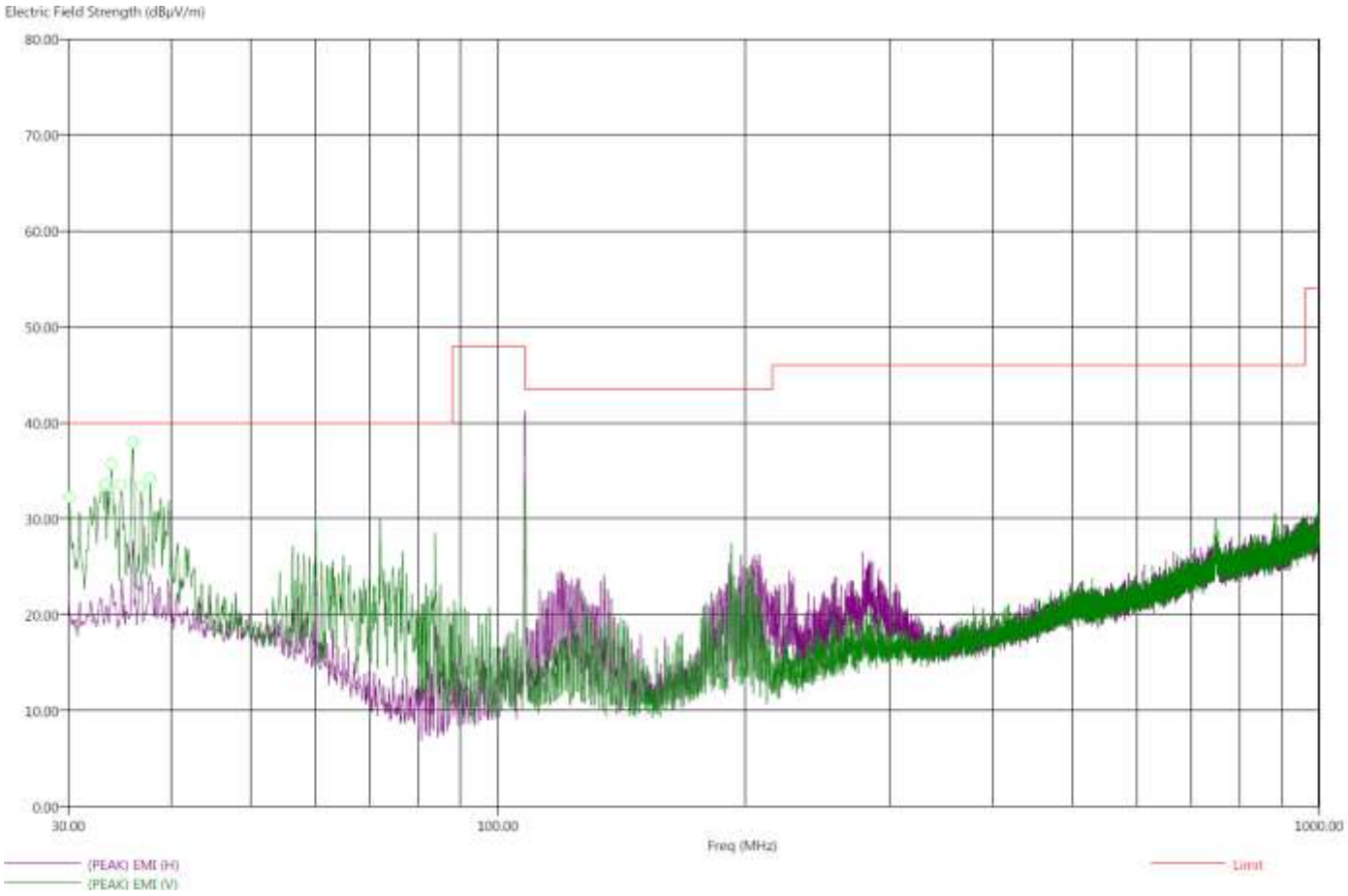
Compatible Electronics, Inc. FAC-3 (LAB-R)

Freq (MHz)	(QP) Margin (dB)	(QP) EMI (dBµV/m)	(PEAK) EMI (dBµV/m)	Limit (dBµV/m)	Pol	Ttbl Agl (deg)	Twr Ht (cm)
30.00	-10.78	29.22	33.52	40.00	V	200.00	101.88
32.70	-11.68	28.32	36.79	40.00	V	360.00	129.82
33.20	-16.44	23.56	34.70	40.00	V	112.00	104.80
33.90	-10.07	29.93	36.89	40.00	V	225.00	159.61
34.80	-9.23	30.77	35.39	40.00	V	118.00	137.34
35.90	-4.48	35.52	38.30	40.00	V	85.00	117.70
38.80	-17.42	22.58	30.50	40.00	V	205.25	136.08

Note: No radiated emissions found between 0.01 & 30MHz or between 1000 and 1080MHz.

```
Title: FCC 15.209, 15.239                          9/24/2013 1:28:35 PM
File: Radiated Pre-Scan 30-1000Mhz_Hi.set          Sequence: Preliminary Scan
Operator: Matt Harrison
EUT Type: TuneCast. F8J055.
EUT Condition: Transmitting 107.9MHz.
Comments: Connected to 12V Battery and iPhone 5.
Temp: 72f
Hum: 47%
12VDC
```

Compatible Electronics, Inc. FAC-3 (LAB-R)



Note: No radiated emissions found between 0.01 & 30MHz or between 1000 and 1080MHz.

```
Title: FCC 15.209, 15.239                          9/24/2013 1:51:04 PM
File: Radiated Final 30-1000Mhz_Hi.set             Sequence: Final Measurements
Operator: Matt Harrison
EUT Type: TuneCast. F8J055.
EUT Condition: Transmitting 107.9MHz.
Comments: Connected to 12V Battery and iPhone 5.
Temp: 72f
Hum: 47%
12VDC
```

Compatible Electronics, Inc. FAC-3 (LAB-R)

Freq (MHz)	(QP) Margin (dB)	(QP) EMI (dBµV/m)	(PEAK) EMI (dBµV/m)	Limit (dBµV/m)	Pol	Ttbl Agl (deg)	Twr Ht (cm)
30.10	-9.87	30.13	33.84	40.00	V	216.00	131.01
33.30	-14.70	25.30	35.01	40.00	V	173.50	110.65
33.90	-8.92	31.08	37.04	40.00	V	175.25	120.26
34.80	-10.46	29.54	34.20	40.00	V	302.75	152.86
36.00	-4.61	35.39	37.90	40.00	V	254.75	111.19
36.80	-15.11	24.89	30.46	40.00	V	106.75	200.02
37.80	-12.94	27.06	34.09	40.00	V	128.50	165.76

Note: No radiated emissions found between 0.01 & 30MHz or between 1000 and 1080MHz.

RECEIVE MODE

Title: FCC 15.209, 15.239 9/24/2013 2:57:10 PM
File: Radiated Pre-Scan 30-1000Mhz_RX.set Sequence: Preliminary Scan
Operator: Matt Harrison
EUT Type: TuneCast. F8J055.
EUT Condition: RX Mode.
Comments: Connected to 12V Battery and iPhone 5.
Temp: 72f
Hum: 47%
12VDC

Compatible Electronics, Inc. FAC-3 (LAB-R)

Freq (MHz)	(QP) Margin (dB)	(QP) EMI (dBµV/m)	(PEAK) EMI (dBµV/m)	Limit (dBµV/m)	Pol	Ttbl Agl (deg)	Twr Ht (cm)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
No additional spurious emissions found in receive mode.							

-20 dB BANDWIDTH

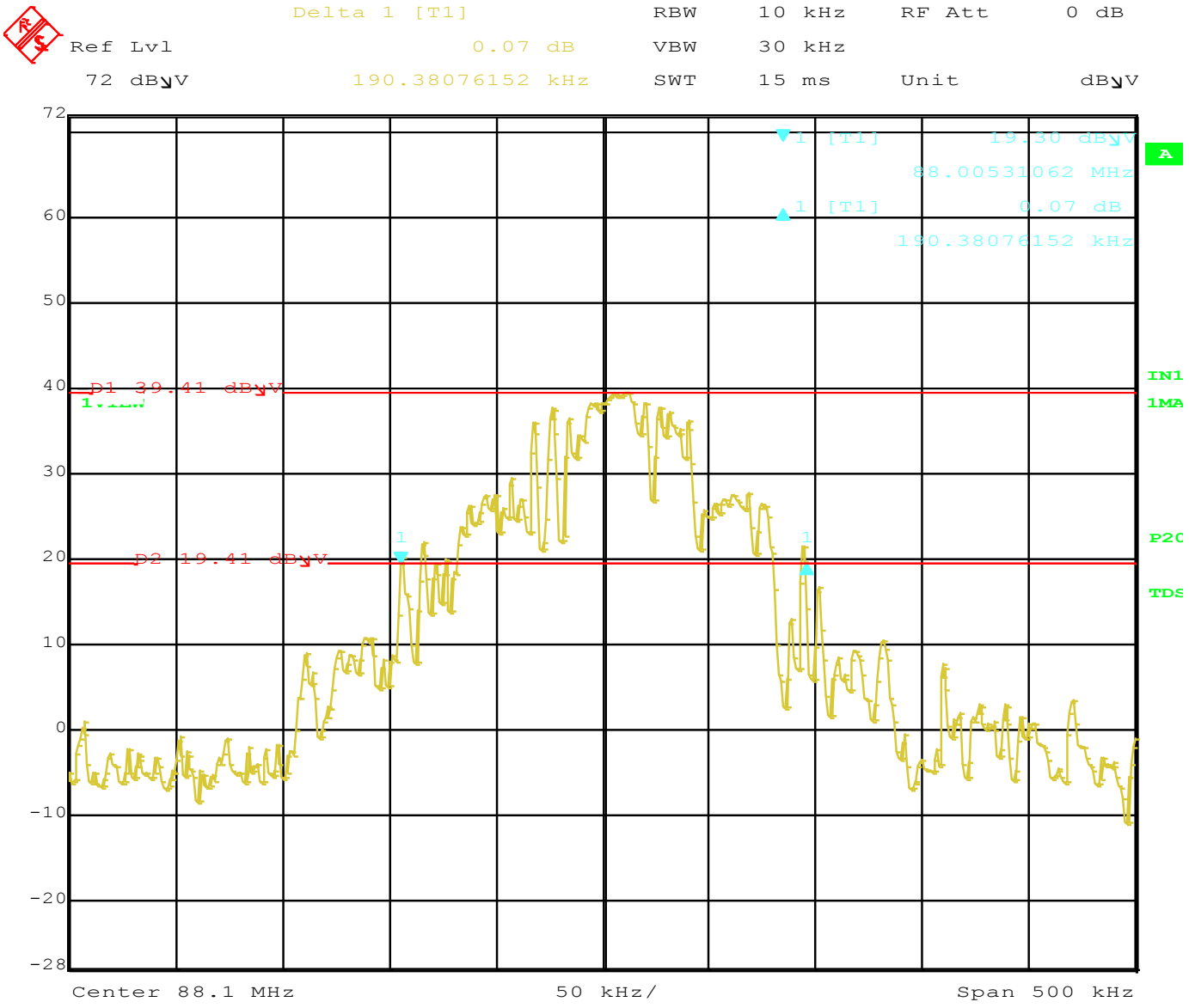
DATA SHEETS

Title: FCC 15.239 Occupied Bandwidth 5/7/2013
Operator: Matt Harrison Final Measurements
EUT Type: TuneCast Auto (F8J055)
EUT Condition: Song played: Linkin Park "Don't Stay" 0dB encode
Comments: Y axis
Temp: 71f
Hum: 51%

Compatible Electronics, Inc. FAC- 3 (LAB R)

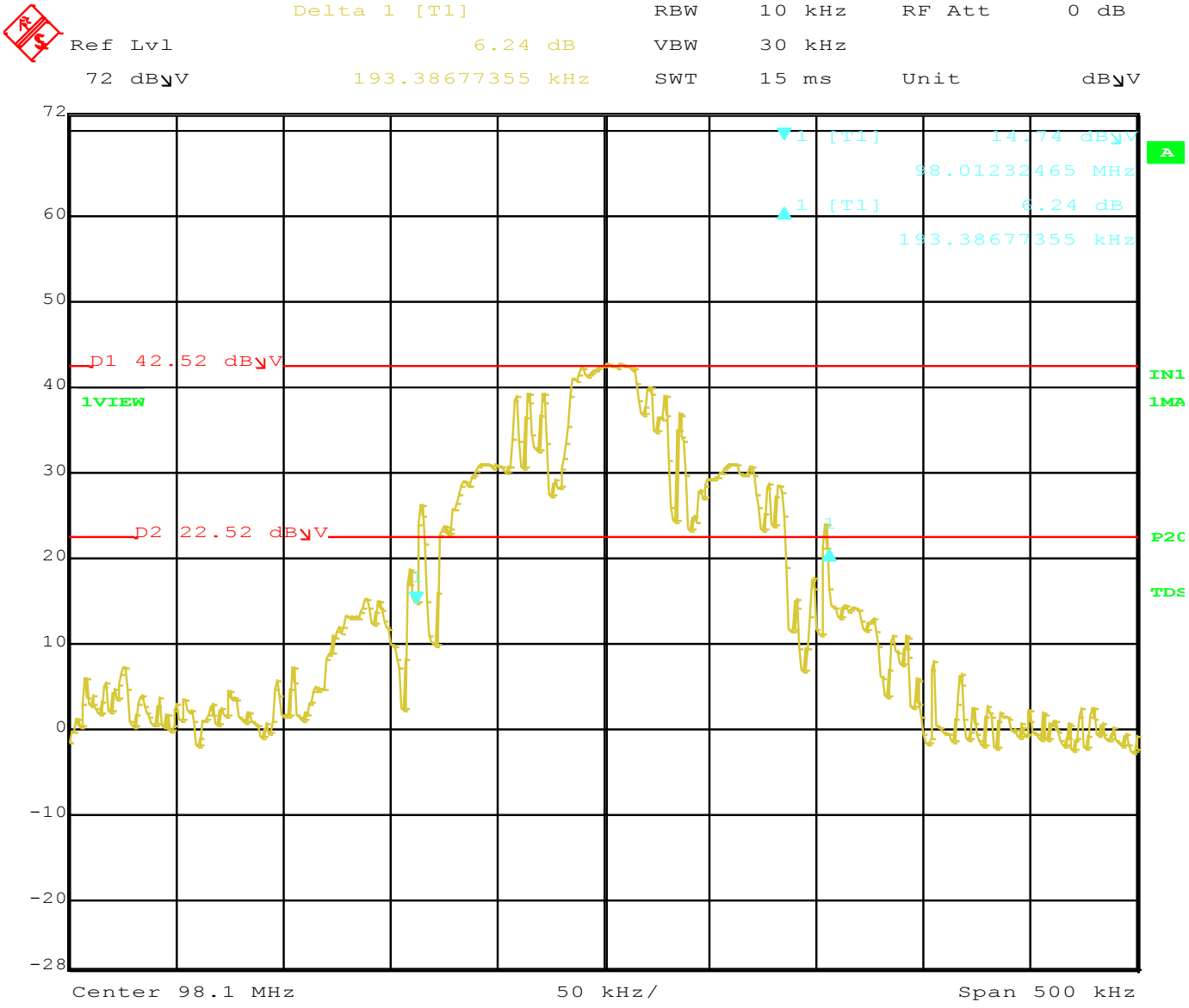
Freq (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Margin (kHz)
88.1	190.38	200	-9.62
98.1	193.39	200	-6.61
107.9	185.37	200	-14.63

Low Channel -20 dB Bandwidth Plot



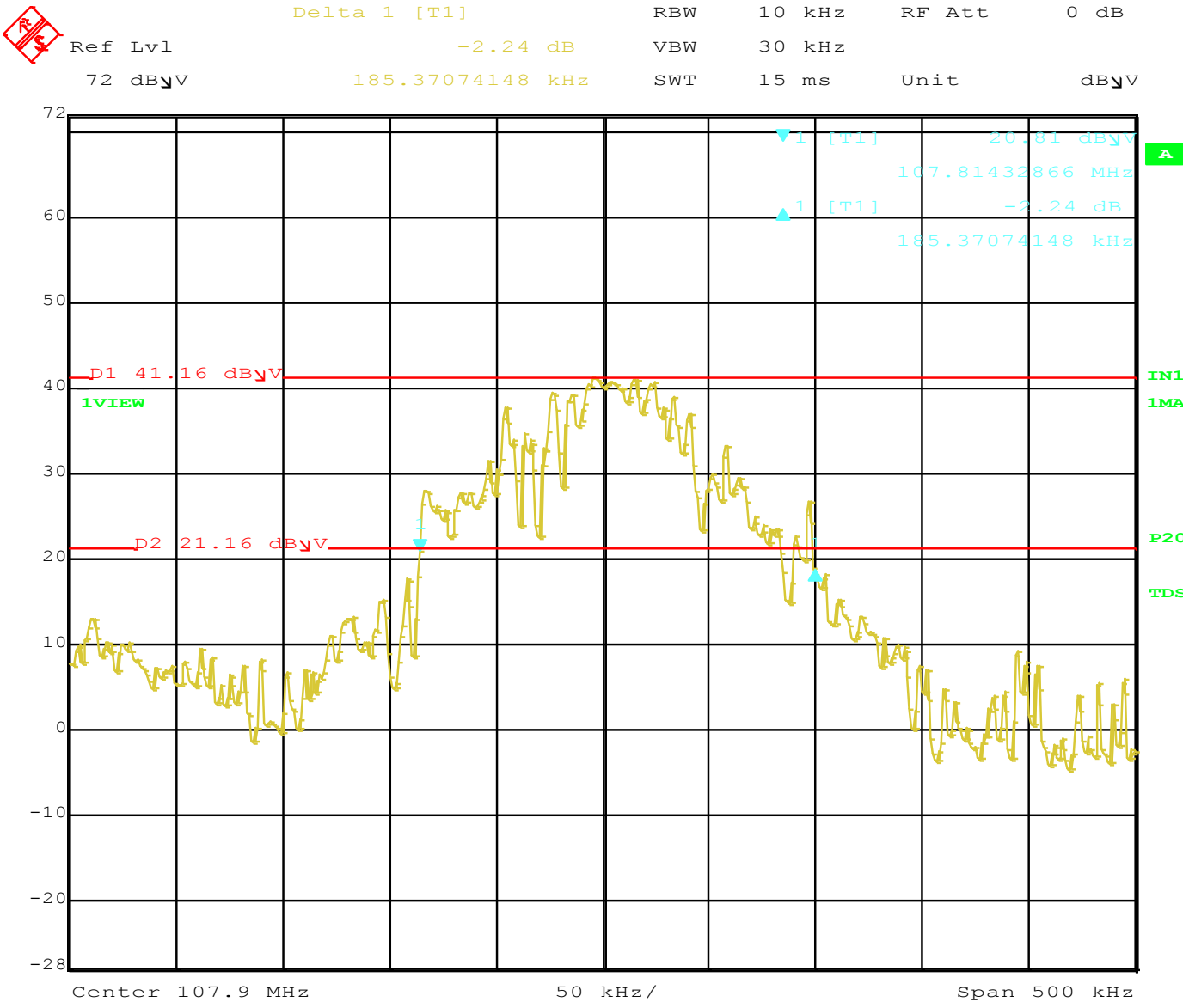
Title: TuneCast F8J055.
Comment A: 20dB BW Low Channel.
Date: 24.SEP.2013 14:13:55

Mid Channel -20 dB Bandwidth Plot



Title: TuneCast F8J055.
Comment A: 20dB BW Mid Channel.
Date: 24.SEP.2013 14:17:14

High Channel -20 dB Bandwidth Plot



Title: TuneCast F8J055.
Comment A: 20dB BW Hi Channel.
Date: 24.SEP.2013 14:08:24

PEAK TRANSMIT EMI

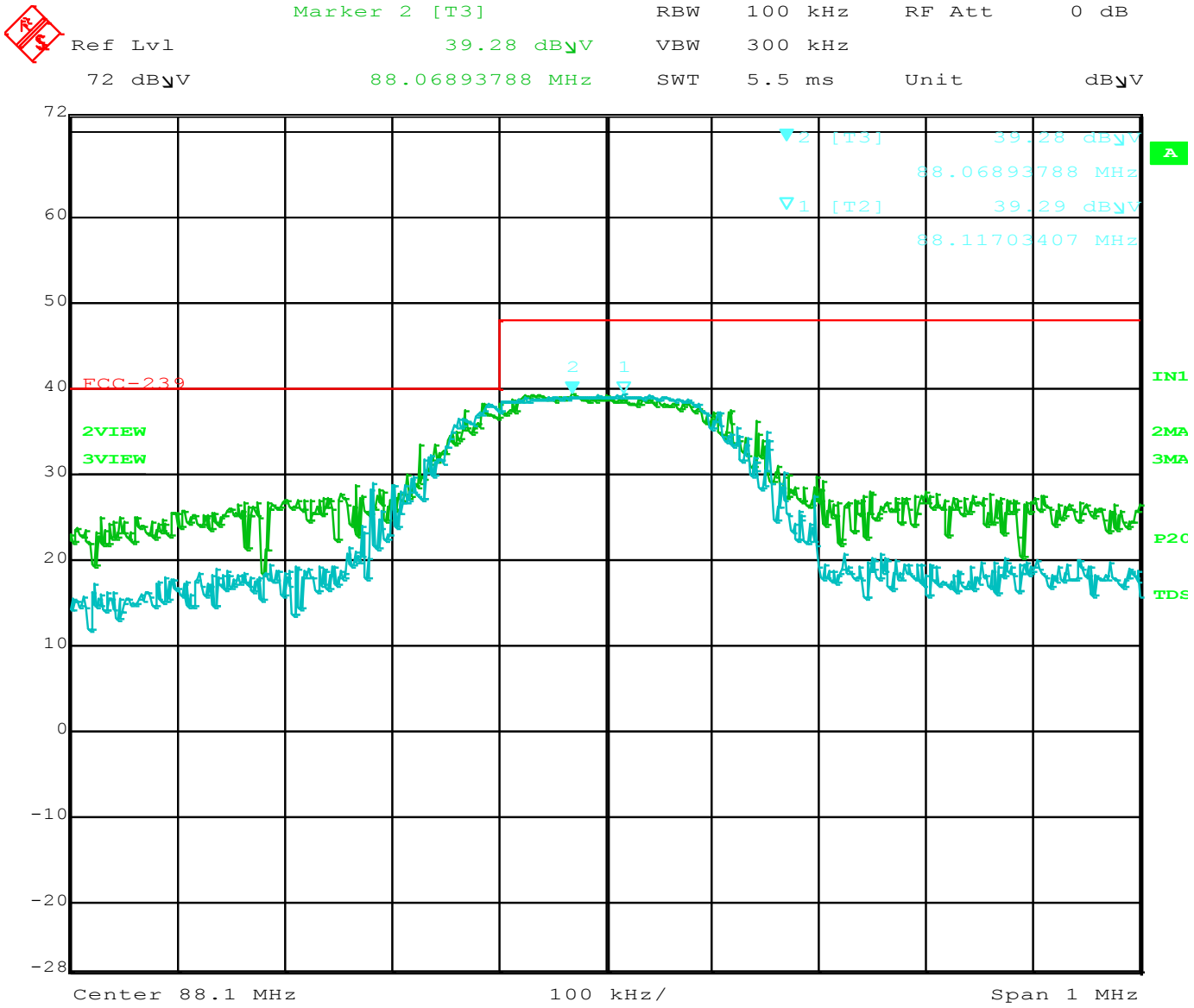
DATA SHEETS

Title: FCC 15.239 Peak Transmit EMI 9/24/2013
Operator: Matt Harrison Final Measurements
EUT Type: TuneCast Auto (F8J055tt)
EUT Condition: Song played: Linkin Park "Don't Stay" 0dB encode
Comments: X axis
Temp: 72f
Hum: 47%

Compatible Electronics, Inc. FAC- 3 (LAB R)

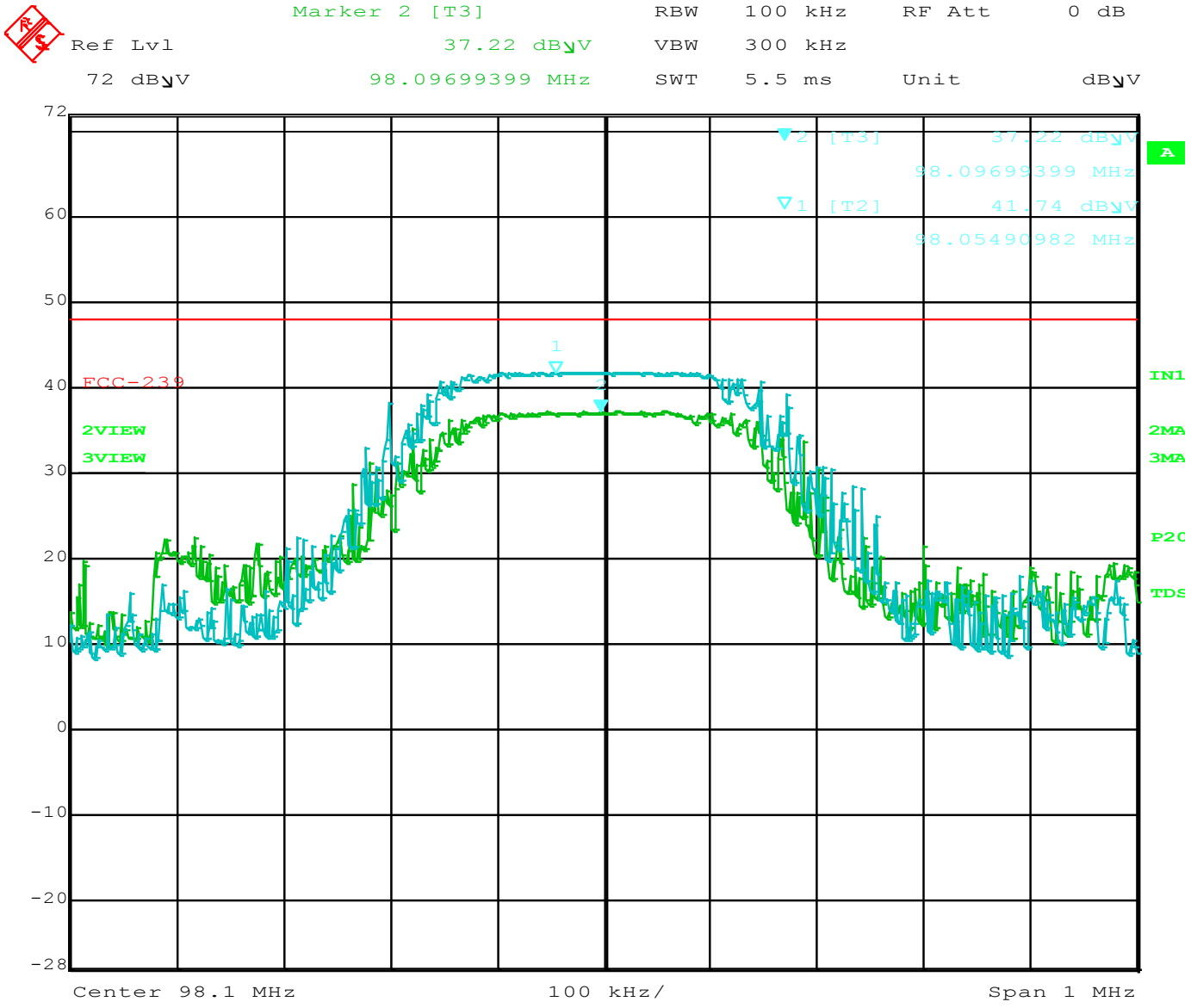
Freq (MHz)	Peak EMI (dBµV/m)	AVG EMI (dBµV/m)	Pol	Limit (dBµV/m)	Margin (dB)
88.1	39.29	N/A	H	47.95	-8.66
88.1	39.28	N/A	V	47.95	-8.67
98.1	41.74	N/A	H	47.95	-6.21
98.1	37.22	N/A	V	47.95	-10.73
107.9	43.50	N/A	H	47.95	-4.45
107.9	36.35	N/A	V	47.95	-11.60

Low Channel - Field Strength



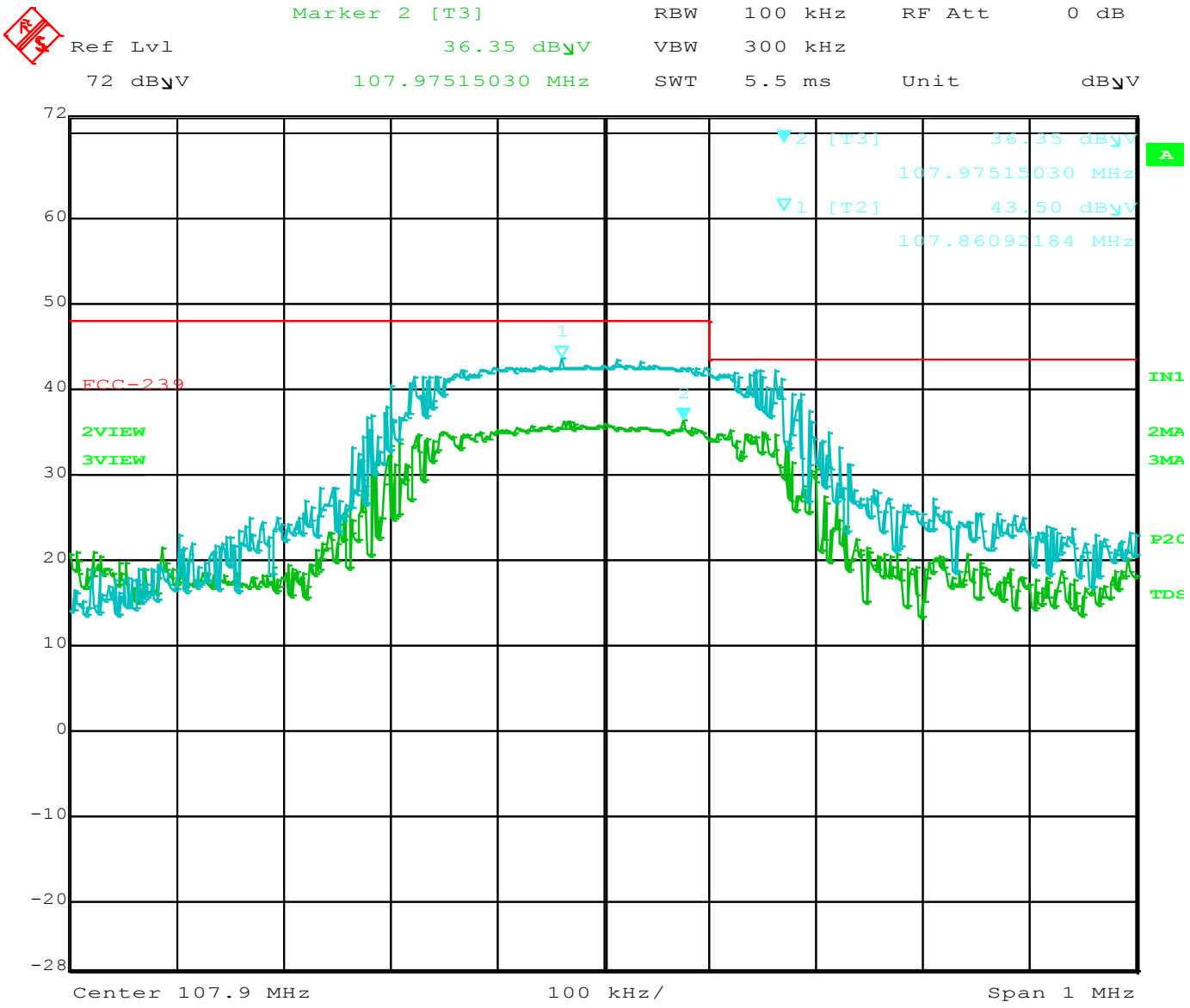
Title: F8J055tt TuneCast.
Comment A: Field Strength Lo Channel.
Date: 24.SEP.2013 09:14:20

Mid Channel - Field Strength



Title: F8J055tt TuneCast.
Comment A: Field Strength Mid Channel.
Date: 24.SEP.2013 09:32:27

High Channel – Field Strength



Title: F8J055tt TuneCast.
Comment A: Field Strength Hi Channel.
Date: 24.SEP.2013 10:07:16

BAND EDGE

DATA SHEETS

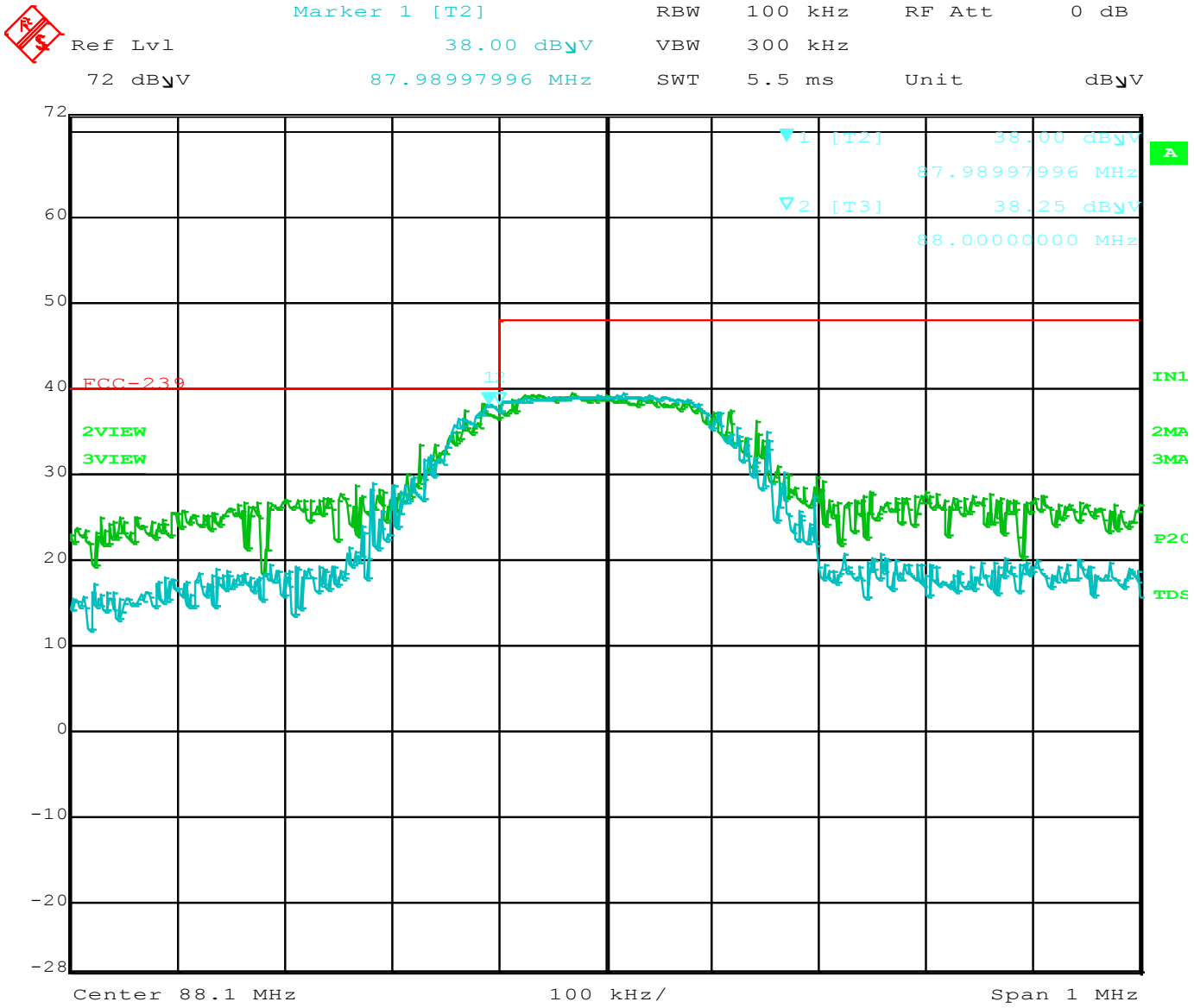
```
Title: FCC 15.239 Restricted Band and Band Edges          9/24/2013
Operator: Matt Harrison                                   Final Measurements
EUT Type: TuneCast Auto (F8J055tt)
EUT Condition: Song played: Linkin Park "Don't Stay" 0dB encode
Comments: X axis,
Low band edge: Fundamental 88.1
High band edge: Fundamental 107.9
Temp: 72f
Hum: 47%
```

Compatible Electronics, Inc. FAC- 3 (LAB R)

Freq (MHz)	Peak EMI (dBµV/m)	QP EMI (dBµV/m)	Limit (dBµV/m)	Margin (dB)
88.00	38.25	N/A	40.00	-1.75
108.06	42.16	N/A	43.50	-1.34

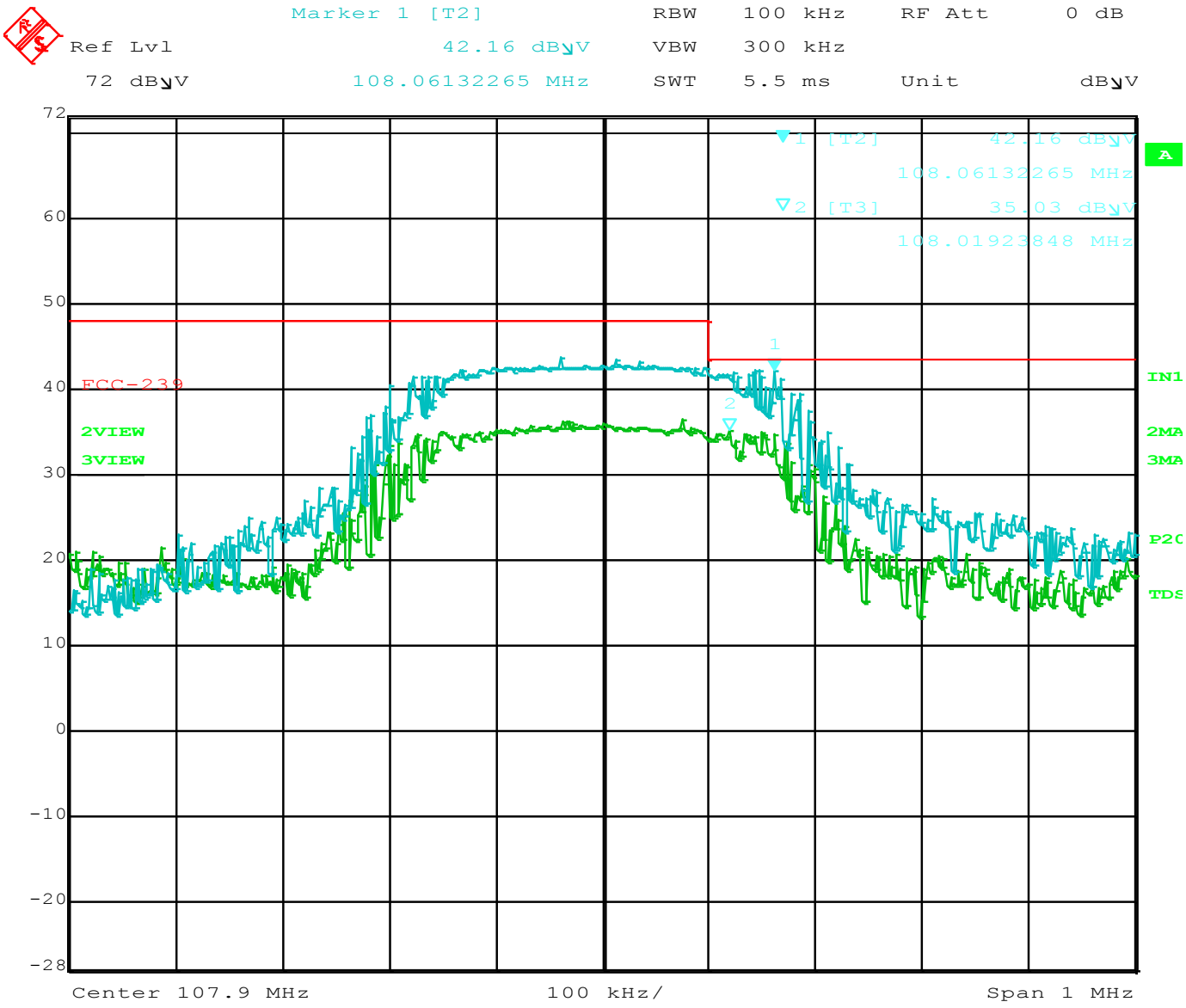
Note: The EUT was tuned to the lowest and highest channels for this test.

Low Channel – Band Edge



Title: F8J055tt TuneCast.
Comment A: Lower Band Edge.
Date: 24.SEP.2013 09:17:26

High Channel – Band Edge



Title: F8J055tt TuneCast.
Comment A: Upper Band Edge.
Date: 24.SEP.2013 10:11:16