FCC PART 15, SUBPART B and C
TEST REPORT

for

2.4 GHz RF MODULE

MODEL: R211

Prepared for

RF DIGITAL CORPORATION
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MONTROSE, CALIFORNIA 91020

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DATE: MARCH 8, 2007

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
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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:	2.4 GHz RF Module Model: R211 S/N: N/A
Product Description:	See Expository Statement
Modifications:	No modifications were made during the testing.
Manufacturer:	RF Digital Corporation 2029 Verdugo Boulevard, Suite 750 Montrose, California 91020
Test Dates:	June 16 and 21, 2006
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.209 and 15.249
Test Procedure:	ANSI C63.4
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and Subpart C, section 15.207 Highest Reading in Relation to Spec Limit: 39.64 dBµV @ 0.634 MHz (*U_c = 0.66 dB)
2	Radiated RF Emissions, 9 kHz – 25 GHz	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249. Highest Reading in Relation to Spec Limit: 35.77 dBµV @ 175.65 MHz (*U_c = 1.49 dB)

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the 2.4 GHz RF Module, Model: R211 (EUT). The EMI measurements were performed according to the measurement procedure described in ANSI C63.4. 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 **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

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

RF Digital Corporation

Armen Kazanchlan President

Compatible Electronics, Inc.

James Ross	Test Engineer
Benigno Chavez	Test Engineer
Falguni Patel	Test Engineer
Kyle Fujimoto	Test Engineer

2.4 Date Test Sample was Received

The test sample was received prior to the initial test date of June 16, 2006.

2.5 Disposition of the Test Sample

The sample was returned to RF Digital Corporation on July 11, 2006.

2.6 Abbreviations and Acronyms

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

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Model
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
TX	Transmit
RX	Receive
PCB	Printed Circuit Board
AC	Alternating Current
N/A	Not Applicable

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 2003	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 2.4 GHz RF Module, Model: R211 (EUT) was connected to a 1/8 inch power connector via a ribbon cable. The 1/8 power connector was also connected to an AC Adapter. The EUT was tested while it was continuously transmitting and in three orthogonal axis. The EUT has an antenna that is soldered to its PCB.

The final radiated as well as the conducted data was taken in the mode above. Please see Appendix E for the data sheets.

4.1.1 Cable Construction and Termination

Cable 1 This is a 1-meter unshielded ribbon cable connecting the male 1/8 inch power connector to the EUT. The cable is hard wired at each end.

Cable 2 This is a 2-meter unshielded cable connecting the AC Adapter to the male 1/8 inch power connector. The cable is hard wired into the AC Adapter and has a female 1/8 inch power connector at the other end.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID
2.4 GHz RF MODULE (EUT)	RF DIGITAL CORPORATION	R211	N/A	**UYIRFD11**
MALE 1/ 8 INCH POWER CONNECTOR	N/A	N/A	N/A	N/A
AC ADAPTER	JAMECO	D6C05F5	N/A	N/A

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Radiate Emissions Data Capture Program	Compatible Electronics	2.0	N/A	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	May 26, 2006	1 Year
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22279	May 26, 2006	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	May 26, 2006	1 Year
EMI Receiver	Rohde & Schwarz	ESIB40	100172	October 28, 2004	2 Year
Preamplifier	Com-Power	PA-102	1017	January 19, 2006	1 Year
Microwave Preamplifier	Com-Power	PA-122	181917	January 20, 2006	1 Year
Loop Antenna	Com-Power	AL-130	17070	July 28, 2005	1 Year
Biconical Antenna	Com-Power	AB-900	15227	March 9, 2006	1 Year
Log Periodic Antenna	Com-Power	AL-100	16060	August 22, 2005	1 Year
Horn Antenna	Com-Power	AH-118	10067	July 27, 2004	2 Year
Antenna Mast	Com-Power	AM-100	N/A	N/A	N/A
Microwave Preamplifier	Com-Power	PA-840	711013	January 20, 2006	1 Year
Horn Antenna	Com-Power	AH826	71957	December 12, 2005	2 Year
Antenna Mast	EMCO	2090	9609-1176	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
LISN	Com Power	LI-215	12078	September 1, 2005	1 Year
LISN	Com Power	LI-215	12082	September 1, 2005	1 Year
Transient Limiter	Seaward	252A910	1	August 17, 2005	1 Year

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 was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

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 Conducted Emissions Test

The spectrum analyzer was used as a measuring meter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak was used only where indicated in the data sheets. A transient limiter was used for the protection of the spectrum analyzer input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by the Compatible Electronics conducted emissions software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave. The final qualification data is located in Appendix E.

Test Results:

The EUT complies with the **Class B** specification limits defined in CFR Title 47, Part 15, Subpart B and the limits defined in CFR Title 47, Part 15, Subpart C, Section 15.207.

7.2 Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer and EMI Receiver were used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com-Power Active Loop Antenna Model: AL-130 was used for frequencies from 9 kHz to 30 MHz, the Com-Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, and the Com-Power Microwave Preamplifier Models: PA-122 and PA-840 were used for frequencies from 1 GHz to 25 GHz. The spectrum analyzer or EMI Receiver were used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer or EMI Receiver records the highest measured reading over all the sweeps.

The quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets.

The frequencies above 1 GHz were averaged manually by narrowing the video filter down to 10 Hz and putting the sweep time on AUTO on the EMI Receiver or spectrum analyzer to keep the amplitude reading calibrated.

The measurement bandwidths and transducers used for the radiated emissions test were:

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 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 25 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4. 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. Data was collected in the worst case (highest emission) configuration of the EUT. 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 gunsight method was used when measuring with the horn antenna in order to ensure accurate results. The loop antenna was also rotated in the horizontal and vertical axis in order to ensure accurate results.

7.3 Radiated Emissions (Spurious and Harmonics) Test (continued)

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance to obtain final test data. The final qualification data sheets are located in Appendix E.

Test Results:

The EUT complies with the **Class B** specification limits defined in CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

8. CONCLUSIONS

The 2.4 GHz RF Module, Model: R211 (EUT) meets all of the **Class B** specification limits defined in CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

APPENDIX A

LABORATORY RECOGNITIONS

LABORATORY RECOGNITIONS

Compatible Electronics has the following agency accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200528-0

Voluntary Control Council for Interference - Registration Numbers: R-983, C-1026, R-984 and C-1027

Bureau of Standards and Metrology Inspection - Reference Number: SL2-IN-E-1031

Conformity Assessment Body for the EMC Directive Under the US/EU MRA Appointed by NIST

Compatible Electronics is recognized or on file with the following agencies:

Federal Communications Commission

Industry Canada

Radio-Frequency Technologies (Competent Body)

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.249 or FCC Class B specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

No modifications were made to the EUT during the testing.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST	2.4 GHz RF Module Model: R211 S/N: N/A

There are no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

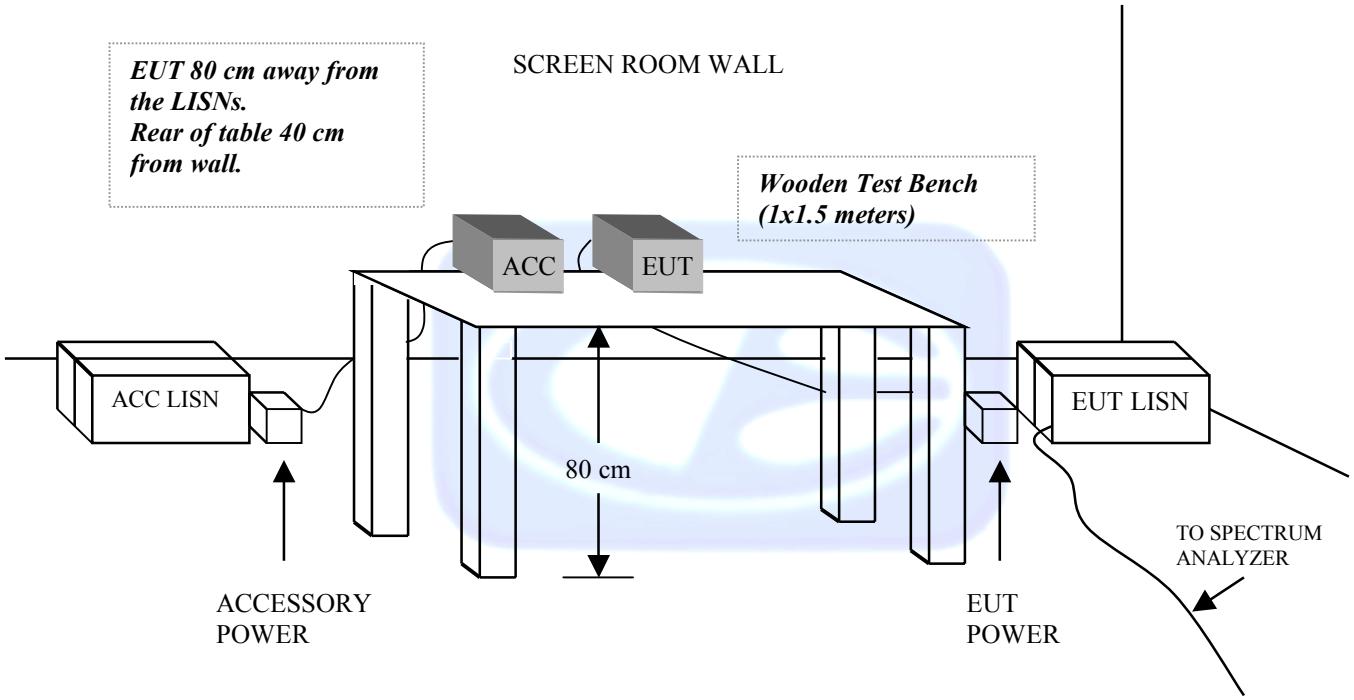
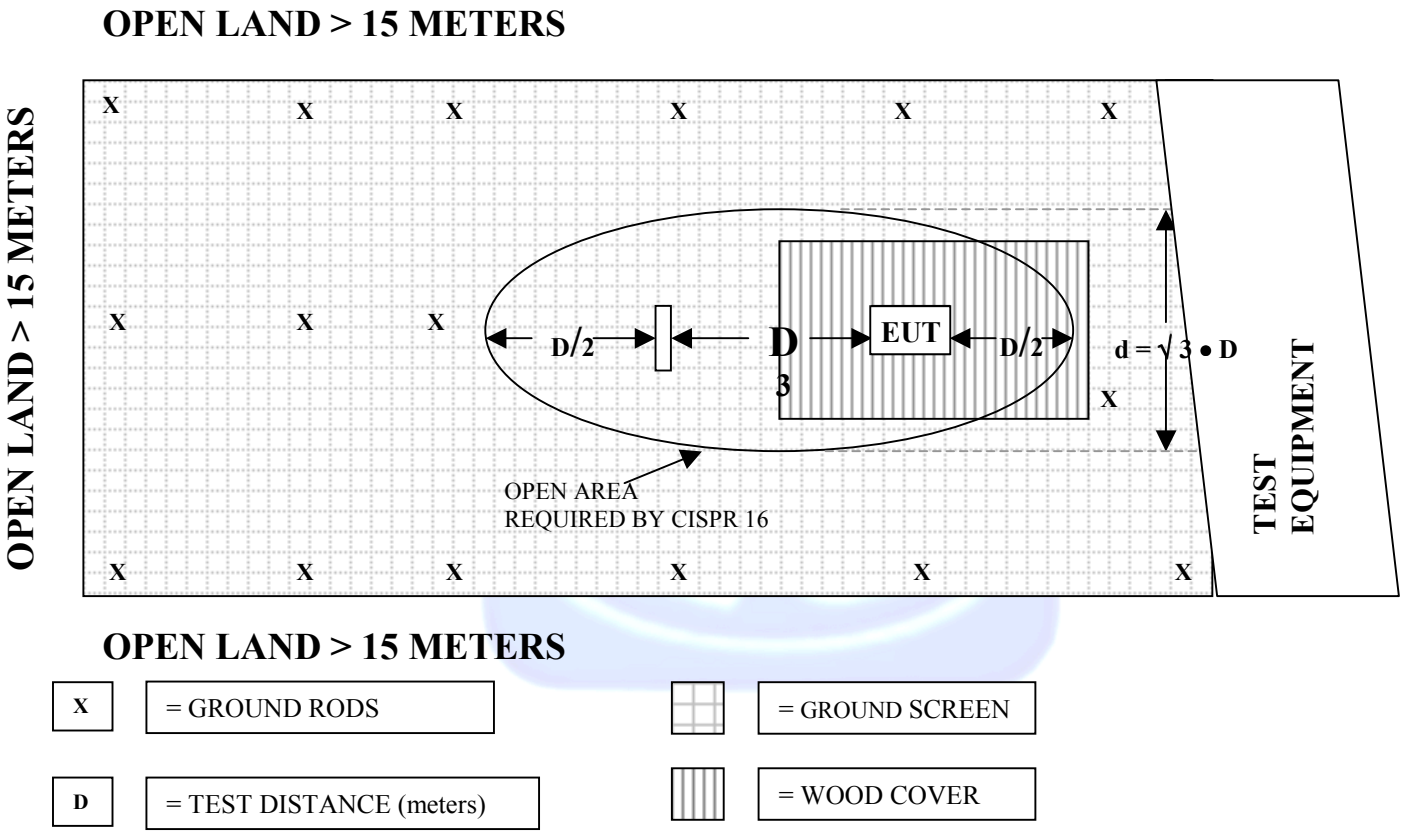


FIGURE 2: PLOT MAP AND LAYOUT OF 3 METER RADIATED TEST SITE



COM-POWER AL-130

LOOP ANTENNA

S/N: 17070

CALIBRATION DATE: JULY 28, 2005

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-43.3	8.16
0.01	-44.1	7.41
0.02	-44.0	7.54
0.05	-42.7	8.8
0.07	-42.0	9.53
0.1	-41.7	9.84
0.2	-43.6	7.87
0.3	-40.9	10.6
0.5	-41.0	10.7
0.7	-40.5	10.97
1	-40.5	11.04
2	-40.5	11.03
3	-40.6	10.9
4	-42.9	8.63
5	-44.3	7.23
10	-53.7	-2.7
15	-62.6	-11.14
20	-58.9	-7.3
25	-51.5	-11.6
30	-63.1	8.9

COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15227

CALIBRATION DATE: MARCH 9, 2006

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	11.12	120	13.50
35	10.17	125	12.63
40	9.75	140	12.20
45	12.22	150	11.85
50	13.28	160	13.25
60	11.36	175	15.74
70	7.95	180	16.23
80	5.95	200	16.79
90	7.62	250	16.47
100	10.89	300	17.49

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16060

CALIBRATION DATE: AUGUST 22, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	12.73	700	19.72
400	13.38	800	20.49
500	15.12	900	21.31
600	16.27	1000	24.25

COM-POWER PA-102

PREAMPLIFIER

S/N: 1017

CALIBRATION DATE: JANUARY 19, 2006

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	38.3	300	38.4
40	38.4	350	38.4
50	38.3	400	38.0
60	38.4	450	38.1
70	38.5	500	37.5
80	38.4	550	38.0
90	38.4	600	38.0
100	38.4	650	37.6
125	38.1	700	37.7
150	38.5	750	37.7
175	38.4	800	37.0
200	38.3	850	37.2
225	38.3	900	36.6
250	38.1	950	36.3
275	38.3	1000	36.3

COM POWER AH-118

HORN ANTENNA

S/N: 10067

CALIBRATION DATE: JULY 27, 2004

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	25.0	10.0	37.8
1.5	27.9	10.5	39.4
2.0	31.5	11.0	39.4
2.5	31.1	11.5	40.6
3.0	30.6	12.0	40.8
3.5	30.5	12.5	40.5
4.0	30.6	13.0	41.2
4.5	31.4	13.5	42.0
5.0	33.7	14.0	43.1
5.5	33.8	14.5	43.4
6.0	34.7	15.0	39.2
6.5	35.0	15.5	38.8
7.0	35.9	16.0	40.1
7.5	38.1	16.5	40.2
8.0	38.2	17.0	43.4
8.5	37.7	17.5	46.6
9.0	37.7	18.0	45.8
9.5	38.4		

COM-POWER PA-122

PREAMPLIFIER

S/N: 181917

CALIBRATION DATE: JANUARY 20, 2006

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	34.697	10.0	36.558
1.5	33.817	10.5	35.048
2.0	33.587	11.0	33.258
2.5	33.804	11.5	32.960
3.0	33.850	12.0	33.312
3.5	33.943	12.5	33.836
4.0	34.399	13.0	34.178
4.5	34.847	13.5	34.197
5.0	35.172	14.0	33.769
5.5	35.383	14.5	33.392
6.0	35.539	15.0	33.387
6.5	34.802	15.5	34.038
7.0	33.793	16.0	34.884
7.5	33.511	16.5	35.740
8.0	33.910	17.0	35.341
8.5	34.907	17.5	34.729
9.0	36.036	18.0	33.760
9.5	36.661		

COM-POWER PA-840

MICROWAVE PREAMPLIFIER

S/N: 711013

CALIBRATION DATE: JANAURY 20, 2006

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	26.240	29.5	27.909
18.5	25.650	30.0	27.656
19.0	25.295	30.5	27.590
19.5	24.601	31.0	27.583
20.0	24.292	31.5	27.247
20.5	24.042	32.0	27.133
21.0	23.877	32.5	27.013
21.5	23.698	33.0	26.789
22.0	23.942	33.5	27.473
22.5	24.138	34.0	26.742
23.0	24.366	34.5	26.612
23.5	24.691	35.0	26.077
24.0	25.179	35.5	26.042
24.5	25.713	36.0	25.616
25.0	26.235	36.5	26.248
25.5	26.403	37.0	26.388
26.0	26.429	37.5	27.079
26.5	27.956	38.0	26.155
27.0	27.015	38.5	24.706
27.5	27.235	39.0	23.867
28.0	27.196	39.5	23.833
28.5	27.569	40.0	24.943
29.0	27.132		

COM-POWER AH826

HORN ANTENNA

S/N: 71957

CALIBRATION DATE: DECEMBER 12, 2005

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	32.4	22.5	32.0
18.5	31.4	23.0	32.2
19.0	31.5	23.5	31.2
19.5	30.9	24.0	33.1
20.0	33.1	24.5	33.1
20.5	33.4	25.0	33.4
21.0	32.1	25.5	33.4
21.5	32.5	26.0	32.9
22.0	32.3	26.5	33.6

FRONT VIEW

RF DIGITAL CORPORATION
2.4 GHz RF MODULE
MODEL: R211
FCC SUBPART B AND C – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

RF DIGITAL CORPORATION
2.4 GHz RF MODULE
MODEL: R211
FCC SUBPART B AND C – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

RF DIGITAL CORPORATION
2.4 GHz RF MODULE
MODEL: R211
FCC SUBPART B AND C – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

RF DIGITAL CORPORATION
2.4 GHz RF MODULE
MODEL: R211
FCC SUBPART B AND C – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS

DATA SHEETS

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	92.75	V	94	-1.25	Peak	1.84	180	X-Axis
2402	83.65	V	94	-10.35	Avg	1.84	180	X-Axis
2402	97.84	H	94	3.84	Peak	1.6	180	X-Axis
2402	86.48	H	94	-7.52	Avg	1.6	180	X-Axis
2402	96.10	V	94	2.1	Peak	2.2	180	Y-Axis
2402	90.35	V	94	-3.65	Avg	2.2	180	Y-Axis
2402	92.33	H	94	-1.67	Peak	2.01	180	Y-Axis
2402	88.05	H	94	-5.95	Avg	2.01	180	Y-Axis
2402	94.11	V	94	0.11	Peak	3.2	180	Z-Axis
2402	88.58	V	94	-5.42	Avg	3.2	180	Z-Axis
2402	97.15	H	94	3.15	Peak	1.92	180	Z-Axis
2402	91.00	H	94	-3	Avg	1.92	180	Z-Axis

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	52.57	H	74	-21.43	Peak	1.71	90	
4804	38.13	H	54	-15.87	Avg	1.71	90	
7206	50.13	H	74	-23.87	Peak	3.33	90	
7206	36.20	H	54	-17.8	Avg	3.33	90	
9608	51.14	H	74	-22.86	Peak	2.09	90	
9608	37.34	H	54	-16.66	Avg	2.09	90	
12010	47.45	H	74	-26.55	Peak	2.18	180	
12010	34.04	H	54	-19.96	Avg	2.18	180	
14412		H	74	-74	Peak			No Emissions
14412		H	54	-54	Avg			Detected
16814		H	74	-74	Peak			No Emissions
16814		H	54	-54	Avg			Detected
19216		H	74	-74	Peak			No Emissions
19216		H	54	-54	Avg			Detected
21618		H	74	-74	Peak			No Emissions
21618		H	54	-54	Avg			Detected
24020		H	74	-74	Peak			No Emissions
24020		H	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	60.93	V	74	-13.07	Peak	2.41	90	
4804	43.44	V	54	-10.56	Avg	2.41	90	
7206	50.13	V	74	-23.87	Peak	2.66	90	
7206	50.13	V	54	-3.87	Peak	2.66	90	
9608	51.18	V	74	-22.82	Peak	2.51	180	
9608	37.67	V	54	-16.33	Avg	2.51	180	
12010	48.81	V	74	-25.19	Peak	2.34	180	
12010	34.70	V	54	-19.3	Avg	2.34	180	
14412		V	74	-74	Peak			No Emissions
14412		V	54	-54	Avg			Detected
16814		V	74	-74	Peak			No Emissions
16814		V	54	-54	Avg			Detected
19216		V	74	-74	Peak			No Emissions
19216		V	54	-54	Avg			Detected
21618		V	74	-74	Peak			No Emissions
21618		V	54	-54	Avg			Detected
24020		V	74	-74	Peak			No Emissions
24020		V	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
Y-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	62.29	H	74	-11.71	Peak	1.11	180	
4804	44.13	H	54	-9.87	Avg	1.11	180	
7206	48.98	H	74	-25.02	Peak	1.27	90	
7206	35.39	H	54	-18.61	Avg	1.27	90	
9608	50.33	H	74	-23.67	Peak	1.25	180	
9608	37.50	H	54	-16.5	Avg	1.25	180	
12010	48.26	H	74	-25.74	Peak	1	180	
12010	34.88	H	54	-19.12	Avg	1	180	
14412		H	74	-74	Peak			No Emissions
14412		H	54	-54	Avg			Detected
16814		H	74	-74	Peak			No Emissions
16814		H	54	-54	Avg			Detected
19216		H	74	-74	Peak			No Emissions
19216		H	54	-54	Avg			Detected
21618		H	74	-74	Peak			No Emissions
21618		H	54	-54	Avg			Detected
24020		H	74	-74	Peak			No Emissions
24020		H	54	-54	Avg			Detected

FCC 15.249
RF Digital Corporation
2.4 GHz RF Module
Model: R211
Y-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	53.17	V	74	-20.83	Peak	2.83	270	
4804	39.03	V	54	-14.97	Avg	2.83	270	
7206	50.75	V	74	-23.25	Peak	2.89	180	
7206	37.40	V	54	-16.6	Avg	2.89	180	
9608	53.39	V	74	-20.61	Peak	2.06	180	
9608	39.14	V	54	-14.86	Avg	2.06	180	
12010	48.37	V	74	-25.63	Peak	1	180	
12010	35.04	V	54	-18.96	Avg	1	180	
14412		V	74	-74	Peak			No Emissions
14412		V	54	-54	Avg			Detected
16814		V	74	-74	Peak			No Emissions
16814		V	54	-54	Avg			Detected
19216		V	74	-74	Peak			No Emissions
19216		V	54	-54	Avg			Detected
21618		V	74	-74	Peak			No Emissions
21618		V	54	-54	Avg			Detected
24020		V	74	-74	Peak			No Emissions
24020		V	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
Z-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	58.63	H	74	-15.37	Peak	3.87	180	
4804	42.40	H	54	-11.6	Avg	3.87	180	
7206	49.03	H	74	-24.97	Peak	2.89	90	
7206	35.44	H	54	-18.56	Avg	2.89	90	
9608	52.50	H	74	-21.5	Peak	2.12	270	
9608	38.94	H	54	-15.06	Avg	2.12	270	
12010	47.78	H	74	-26.22	Peak	1	180	
12010	34.03	H	54	-19.97	Avg	1	180	
14412		H	74	-74	Peak			No Emissions
14412		H	54	-54	Avg			Detected
16814		H	74	-74	Peak			No Emissions
16814		H	54	-54	Avg			Detected
19216		H	74	-74	Peak			No Emissions
19216		H	54	-54	Avg			Detected
21618		H	74	-74	Peak			No Emissions
21618		H	54	-54	Avg			Detected
24020		H	74	-74	Peak			No Emissions
24020		H	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
Z-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4804	61.26	V	74	-12.74	Peak	1.86	90	
4804	43.58	V	54	-10.42	Avg	1.86	90	
7206	48.94	V	74	-25.06	Peak	2.44	0	
7206	35.14	V	54	-18.86	Avg	2.44	0	
9608	51.41	V	74	-22.59	Peak	3.13	180	
9608	37.75	V	54	-16.25	Avg	3.13	180	
12010	48.73	V	74	-25.27	Peak	1.19	180	
12010	35.03	V	54	-18.97	Avg	1.19	180	
14412		V	74	-74	Peak			No Emissions
14412		V	54	-54	Avg			Detected
16814		V	74	-74	Peak			No Emissions
16814		V	54	-54	Avg			Detected
19216		V	74	-74	Peak			No Emissions
19216		V	54	-54	Avg			Detected
21618		V	74	-74	Peak			No Emissions
21618		V	54	-54	Avg			Detected
24020		V	74	-74	Peak			No Emissions
24020		V	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis (Worst Case)

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions
								Found from the Digital
								Portion
								from 1 GHz to 25 GHz
								for both Vertical and
								Horizontal Polarizations

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis (Worst Case)

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions
								Found from the Receiver
								Portion
								from 1 GHz to 8 GHz
								for both Vertical and
								Horizontal Polarizations

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2441	97.37	V	94	3.37	Peak	2.5	180	X-Axis
2441	91.06	V	94	-2.94	Avg	2.5	180	X-Axis
2441	96.79	H	94	2.79	Peak	2.3	180	X-Axis
2441	90.92	H	94	-3.08	Avg	2.3	180	X-Axis
2441	99.39	V	94	5.39	Peak	1.28	180	Y-Axis
2441	92.23	V	94	-1.77	Avg	1.28	180	Y-Axis
2441	98.06	H	94	4.06	Peak	1.86	180	Y-Axis
2441	91.09	H	94	-2.91	Avg	1.86	180	Y-Axis
2441	95.83	V	94	1.83	Peak	3.14	180	Z-Axis
2441	90.37	V	94	-3.63	Avg	3.14	180	Z-Axis
2441	98.86	H	94	4.86	Peak	1.9	180	Z-Axis
2441	91.73	H	94	-2.27	Avg	1.9	180	Z-Axis

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	51.28	H	74	-22.72	Peak	2.59	90	
4882	36.99	H	54	-17.01	Avg	2.59	90	
7323	48.47	H	74	-25.53	Peak	2.32	0	
7323	35.51	H	54	-18.49	Avg	2.32	0	
9764	50.87	H	74	-23.13	Peak	2.34	180	
9764	37.81	H	54	-16.19	Avg	2.34	180	
12205		H	74	-74	Peak			No Emissions
12205		H	54	-54	Avg			Detected
14646		H	74	-74	Peak			No Emissions
14646		H	54	-54	Avg			Detected
17087		H	74	-74	Peak			No Emissions
17087		H	54	-54	Avg			Detected
19528		H	74	-74	Peak			No Emissions
19528		H	54	-54	Avg			Detected
21969		H	74	-74	Peak			No Emissions
21969		H	54	-54	Avg			Detected
24410		H	74	-74	Peak			No Emissions
24410		H	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	59.81	V	74	-14.19	Peak	3.28	180	
4882	42.81	V	54	-11.19	Avg	3.28	180	
7323	50.04	V	74	-23.96	Peak	2.53	180	
7323	37.05	V	54	-16.95	Avg	2.53	180	
9764	50.14	V	74	-23.86	Peak	1.46	180	
9764	36.45	V	54	-17.55	Avg	1.46	180	
12205		V	74	-74	Peak			No Emissions
12205		V	54	-54	Avg			Detected
14646		V	74	-74	Peak			No Emissions
14646		V	54	-54	Avg			Detected
17087		V	74	-74	Peak			No Emissions
17087		V	54	-54	Avg			Detected
19528		V	74	-74	Peak			No Emissions
19528		V	54	-54	Avg			Detected
21969		V	74	-74	Peak			No Emissions
21969		V	54	-54	Avg			Detected
24410		V	74	-74	Peak			No Emissions
24410		V	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
Y-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	59.69	H	74	-14.31	Peak	1.55	180	
4882	42.79	H	54	-11.21	Avg	1.55	180	
7323	48.50	H	74	-25.5	Peak	1.95	90	
7323	35.64	H	54	-18.36	Avg	1.95	90	
9764	51.43	H	74	-22.57	Peak	1.84	180	
9764	37.77	H	54	-16.23	Avg	1.84	180	
12205		H	74	-74	Peak			No Emissions
12205		H	54	-54	Avg			Detected
14646		H	74	-74	Peak			No Emissions
14646		H	54	-54	Avg			Detected
17087		H	74	-74	Peak			No Emissions
17087		H	54	-54	Avg			Detected
19528		H	74	-74	Peak			No Emissions
19528		H	54	-54	Avg			Detected
21969		H	74	-74	Peak			No Emissions
21969		H	54	-54	Avg			Detected
24410		H	74	-74	Peak			No Emissions
24410		H	54	-54	Avg			Detected

FCC 15.249
RF Digital Corporation
2.4 GHz RF Module
Model: R211
Y-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	57.39	V	74	-16.61	Peak	1.26	90	
4882	41.55	V	54	-12.45	Avg	1.26	90	
7323	49.73	V	74	-24.27	Peak	3.08	180	
7323	35.72	V	54	-18.28	Avg	3.08	180	
9764	51.32	V	74	-22.68	Peak	2.43	90	
9764	38.06	V	54	-15.94	Avg	2.43	90	
12205		V	74	-74	Peak			No Emissions
12205		V	54	-54	Avg			Detected
14646		V	74	-74	Peak			No Emissions
14646		V	54	-54	Avg			Detected
17087		V	74	-74	Peak			No Emissions
17087		V	54	-54	Avg			Detected
19528		V	74	-74	Peak			No Emissions
19528		V	54	-54	Avg			Detected
21969		V	74	-74	Peak			No Emissions
21969		V	54	-54	Avg			Detected
24410		V	74	-74	Peak			No Emissions
24410		V	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
Z-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	58.61	H	74	-15.39	Peak	2.93	0	
4882	42.52	H	54	-11.48	Avg	2.93	0	
7323	49.41	H	74	-24.59	Peak	2.84	270	
7323	36.04	H	54	-17.96	Avg	2.84	270	
9764	53.45	H	74	-20.55	Peak	2.23	270	
9764	39.70	H	54	-14.3	Avg	2.23	270	
12205		H	74	-74	Peak			No Emissions
12205		H	54	-54	Avg			Detected
14646		H	74	-74	Peak			No Emissions
14646		H	54	-54	Avg			Detected
17087		H	74	-74	Peak			No Emissions
17087		H	54	-54	Avg			Detected
19528		H	74	-74	Peak			No Emissions
19528		H	54	-54	Avg			Detected
21969		H	74	-74	Peak			No Emissions
21969		H	54	-54	Avg			Detected
24410		H	74	-74	Peak			No Emissions
24410		H	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
Z-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4882	60.25	V	74	-13.75	Peak	1.34	180	
4882	43.44	V	54	-10.56	Avg	1.34	180	
7323	49.93	V	74	-24.07	Peak	3.52	180	
7323	36.84	V	54	-17.16	Avg	3.52	180	
9764	51.77	V	74	-22.23	Peak	3.21	180	
9764	38.35	V	54	-15.65	Avg	3.21	180	
12205		V	74	-74	Peak			No Emissions
12205		V	54	-54	Avg			Detected
14646		V	74	-74	Peak			No Emissions
14646		V	54	-54	Avg			Detected
17087		V	74	-74	Peak			No Emissions
17087		V	54	-54	Avg			Detected
19528		V	74	-74	Peak			No Emissions
19528		V	54	-54	Avg			Detected
21969		V	74	-74	Peak			No Emissions
21969		V	54	-54	Avg			Detected
24410		V	74	-74	Peak			No Emissions
24410		V	54	-54	Avg			Detected

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-axis (Worst Case)

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions
								Found from the Digital
								Portion
								from 1 GHz to 25 GHz
								for both Vertical and
								Horizontal Polarizations

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2481	94.82	V	94	0.82	Peak	2.29	180	X-Axis
2481	87.30	V	94	-6.7	Avg	2.29	180	X-Axis
2481	100.04	H	94	6.04	Peak	2.26	180	X-Axis
2481	92.44	H	94	-1.56	Avg	2.26	180	X-Axis
2481	101.30	V	94	7.3	Peak	1.63	180	Y-Axis
2481	93.95	V	94	-0.05	Avg	1.63	180	Y-Axis
2481	97.44	H	94	3.44	Peak	1.49	180	Y-Axis
2481	90.03	H	94	-3.97	Avg	1.49	180	Y-Axis
2481	97.38	V	94	3.38	Peak	2	180	Z-Axis
2481	89.41	V	94	-4.59	Avg	2	180	Z-Axis
2481	99.81	H	94	5.81	Peak	1.85	225	Z-Axis
2481	92.49	H	94	-1.51	Avg	1.85	225	Z-Axis

FCC 15.249
RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4962	49.97	H	74	-24.03	Peak	2.85	180	
4962	39.95	H	54	-14.05	Avg	2.85	180	
7443	51.43	H	74	-22.57	Peak	3.41	180	
7443	39.79	H	54	-14.21	Avg	3.41	180	
9924	51.74	H	74	-22.26	Peak	2.89	180	
9924	39.91	H	54	-14.09	Avg	2.89	180	
12405		H	74	-74	Peak			No Emissions
12405		H	54	-54	Avg			Detected
14886		H	74	-74	Peak			No Emissions
14886		H	54	-54	Avg			Detected
17367		H	74	-74	Peak			No Emissions
17367		H	54	-54	Avg			Detected
19848		H	74	-74	Peak			No Emissions
19848		H	54	-54	Avg			Detected
22329		H	74	-74	Peak			No Emissions
22329		H	54	-54	Avg			Detected
24810		H	74	-74	Peak			No Emissions
24810		H	54	-54	Avg			Detected

FCC 15.249
RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4962	54.86	V	74	-19.14	Peak	1.05	180	
4962	45.50	V	54	-8.5	Avg	1.05	180	
7443	49.79	V	74	-24.21	Peak	1.72	180	
7443	38.23	V	54	-15.77	Avg	1.72	180	
9924	42.87	V	74	-31.13	Peak	1.89	180	
9924	30.83	V	54	-23.17	Avg	1.89	180	
12405		V	74	-74	Peak			No Emissions
12405		V	54	-54	Avg			Detected
14886		V	74	-74	Peak			No Emissions
14886		V	54	-54	Avg			Detected
17367		V	74	-74	Peak			No Emissions
17367		V	54	-54	Avg			Detected
19848		V	74	-74	Peak			No Emissions
19848		V	54	-54	Avg			Detected
22329		V	74	-74	Peak			No Emissions
22329		V	54	-54	Avg			Detected
24810		V	74	-74	Peak			No Emissions
24810		V	54	-54	Avg			Detected

FCC 15.249
RF Digital Corporation
2.4 GHz RF Module
Model: R211
Y-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4962	58.05	H	74	-15.95	Peak	1.35	180	
4962	48.78	H	54	-5.22	Avg	1.35	180	
7443	51.40	H	74	-22.6	Peak	2.36	180	
7443	39.02	H	54	-14.98	Avg	2.36	180	
9924	51.28	H	74	-22.72	Peak	1.45	180	
9924	39.34	H	54	-14.66	Avg	1.45	180	
12405		H	74	-74	Peak			No Emissions
12405		H	54	-54	Avg			Detected
14886		H	74	-74	Peak			No Emissions
14886		H	54	-54	Avg			Detected
17367		H	74	-74	Peak			No Emissions
17367		H	54	-54	Avg			Detected
19848		H	74	-74	Peak			No Emissions
19848		H	54	-54	Avg			Detected
22329		H	74	-74	Peak			No Emissions
22329		H	54	-54	Avg			Detected
24810		H	74	-74	Peak			No Emissions
24810		H	54	-54	Avg			Detected

FCC 15.249
RF Digital Corporation
2.4 GHz RF Module
Model: R211
Y-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4962	54.69	V	74	-19.31	Peak	1.84	180	
4962	45.33	V	54	-8.67	Avg	1.84	180	
7443	50.70	V	74	-23.3	Peak	1.29	180	
7443	38.62	V	54	-15.38	Avg	1.29	180	
9924	51.19	V	74	-22.81	Peak	3.26	180	
9924	38.86	V	54	-15.14	Avg	3.26	180	
12405		V	74	-74	Peak			No Emissions
12405		V	54	-54	Avg			Detected
14886		V	74	-74	Peak			No Emissions
14886		V	54	-54	Avg			Detected
17367		V	74	-74	Peak			No Emissions
17367		V	54	-54	Avg			Detected
19848		V	74	-74	Peak			No Emissions
19848		V	54	-54	Avg			Detected
22329		V	74	-74	Peak			No Emissions
22329		V	54	-54	Avg			Detected
24810		V	74	-74	Peak			No Emissions
24810		V	54	-54	Avg			Detected

FCC 15.249
RF Digital Corporation
2.4 GHz RF Module
Model: R211
Z-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4962	54.02	H	74	-19.98	Peak	1.07	180	
4962	44.78	H	54	-9.22	Avg	1.07	180	
7443	49.26	H	74	-24.74	Peak	1	180	
7443	36.95	H	54	-17.05	Avg	1	180	
9924	51.45	H	74	-22.55	Peak	1.41	180	
9924	39.69	H	54	-14.31	Avg	1.41	180	
12405		H	74	-74	Peak			No Emissions
12405		H	54	-54	Avg			Detected
14886		H	74	-74	Peak			No Emissions
14886		H	54	-54	Avg			Detected
17367		H	74	-74	Peak			No Emissions
17367		H	54	-54	Avg			Detected
19848		H	74	-74	Peak			No Emissions
19848		H	54	-54	Avg			Detected
22329		H	74	-74	Peak			No Emissions
22329		H	54	-54	Avg			Detected
24810		H	74	-74	Peak			No Emissions
24810		H	54	-54	Avg			Detected

FCC 15.249
RF Digital Corporation
2.4 GHz RF Module
Model: R211
Z-Axis

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4962	54.96	V	74	-19.04	Peak	2.72	180	
4962	45.68	V	54	-8.32	Avg	2.72	180	
7443	48.84	V	74	-25.16	Peak	2.85	180	
7443	37.90	V	54	-16.1	Avg	2.85	180	
9924	50.33	V	74	-23.67	Peak	1.89	180	
9924	36.75	V	54	-17.25	Avg	1.89	180	
12405		V	74	-74	Peak			No Emissions
12405		V	54	-54	Avg			Detected
14886		V	74	-74	Peak			No Emissions
14886		V	54	-54	Avg			Detected
17367		V	74	-74	Peak			No Emissions
17367		V	54	-54	Avg			Detected
19848		V	74	-74	Peak			No Emissions
19848		V	54	-54	Avg			Detected
22329		V	74	-74	Peak			No Emissions
22329		V	54	-54	Avg			Detected
24810		V	74	-74	Peak			No Emissions
24810		V	54	-54	Avg			Detected

FCC 15.249
RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis (Worst Case)

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions
								Found from the Digital
								Portion
								from 1 GHz to 25 GHz
								for both Vertical and
								Horizontal Polarizations

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
X-Axis (Worst Case)

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions
								Found from the Receiver
								Portion
								from 1 GHz to 8 GHz
								for both Vertical and
								Horizontal Polarizations

FCC Class B and FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
Configuration: Continuous Transmit Mode

Date: 6/20/06
Lab: D
Tested By: Benigno Chavez

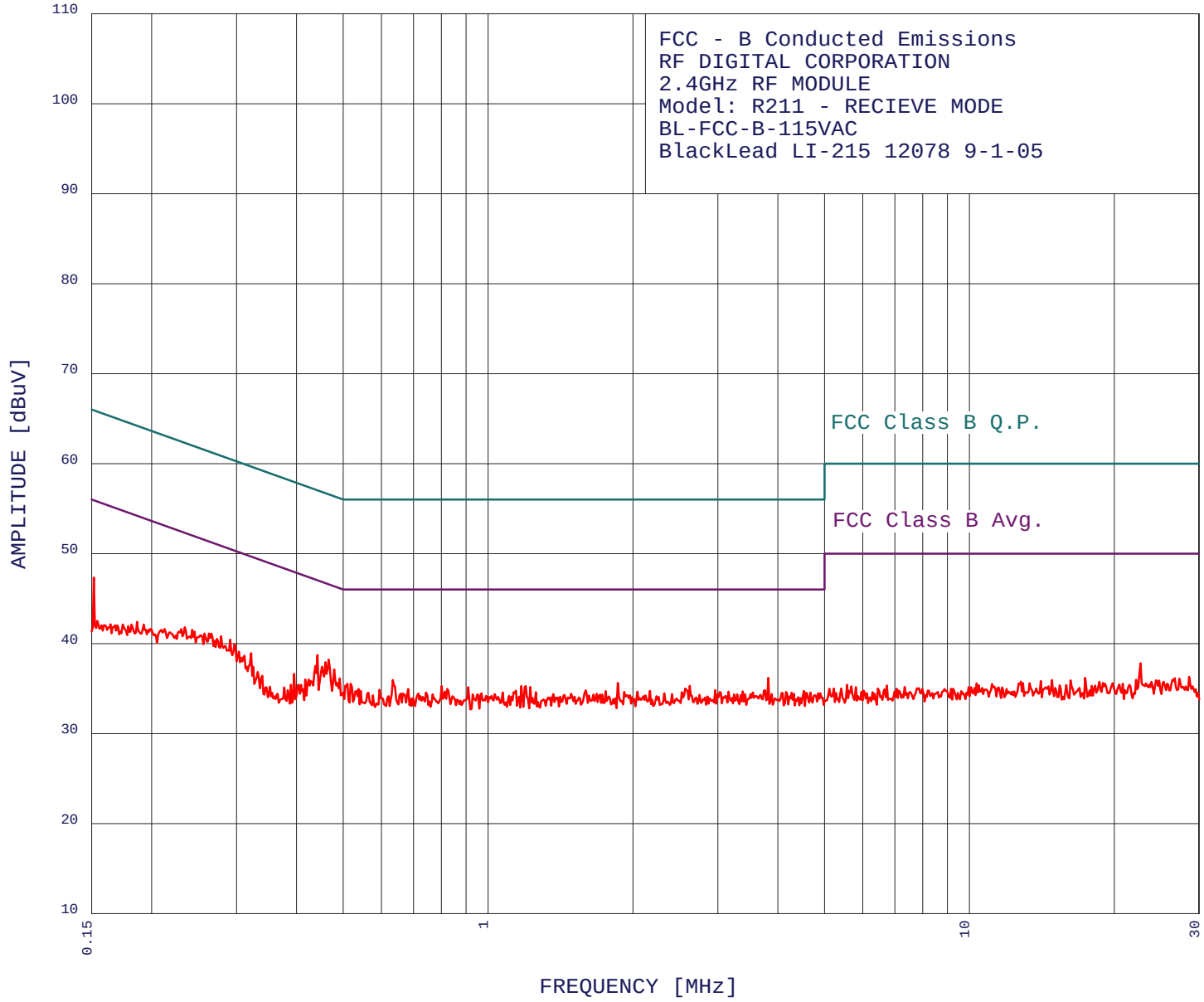
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit (dBuV/m)	Margin (dB)	Peak / QP / Avg	Comments
363.30	21.38	V	46.02	-24.64	Peak	
111.76	23.57	V	43.52	-19.95	Peak	
167.67	26.53	V	43.52	-16.99	Peak	
171.65	25.26	V	43.52	-18.26	Peak	
175.65	35.77	V	43.52	-7.75	Peak	
183.62	23.35	V	43.52	-20.17	Peak	
195.60	24.72	V	43.52	-18.80	Peak	
199.60	30.64	V	43.52	-12.88	Peak	
203.58	25.31	V	43.52	-18.21	Peak	
207.59	26.08	V	43.52	-17.44	Peak	
211.58	24.85	V	43.52	-18.67	Peak	
215.57	24.75	V	43.52	-18.77	Peak	
135.72	18.23	H	43.52	-25.29	Peak	
167.66	21.19	H	43.52	-22.33	Peak	
371.27	19.11	H	46.02	-26.91	Peak	
387.24	19.14	H	46.02	-26.88	Peak	
395.23	18.29	H	46.02	-27.73	Peak	
398.57	20.49	H	46.02	-25.53	Peak	
411.13	20.41	H	46.02	-25.61	Peak	
355.29	15.34	V	46.02	-30.68	Peak	
363.30	18.20	V	46.02	-27.82	Peak	
406.39	19.11	V	46.02	-26.91	Peak	
432.05	18.47	V	46.02	-27.55	Peak	

CONDUCTED EMISSIONS

DATA SHEETS

EMISSION LEVEL [dBuV] PEAK 6/16/2006 16:36:24

Graph for Peak



COMPATIBLE ELECTRONICS

COMPATIBLE ELECTRONICS

6/16/2006 16:36:24

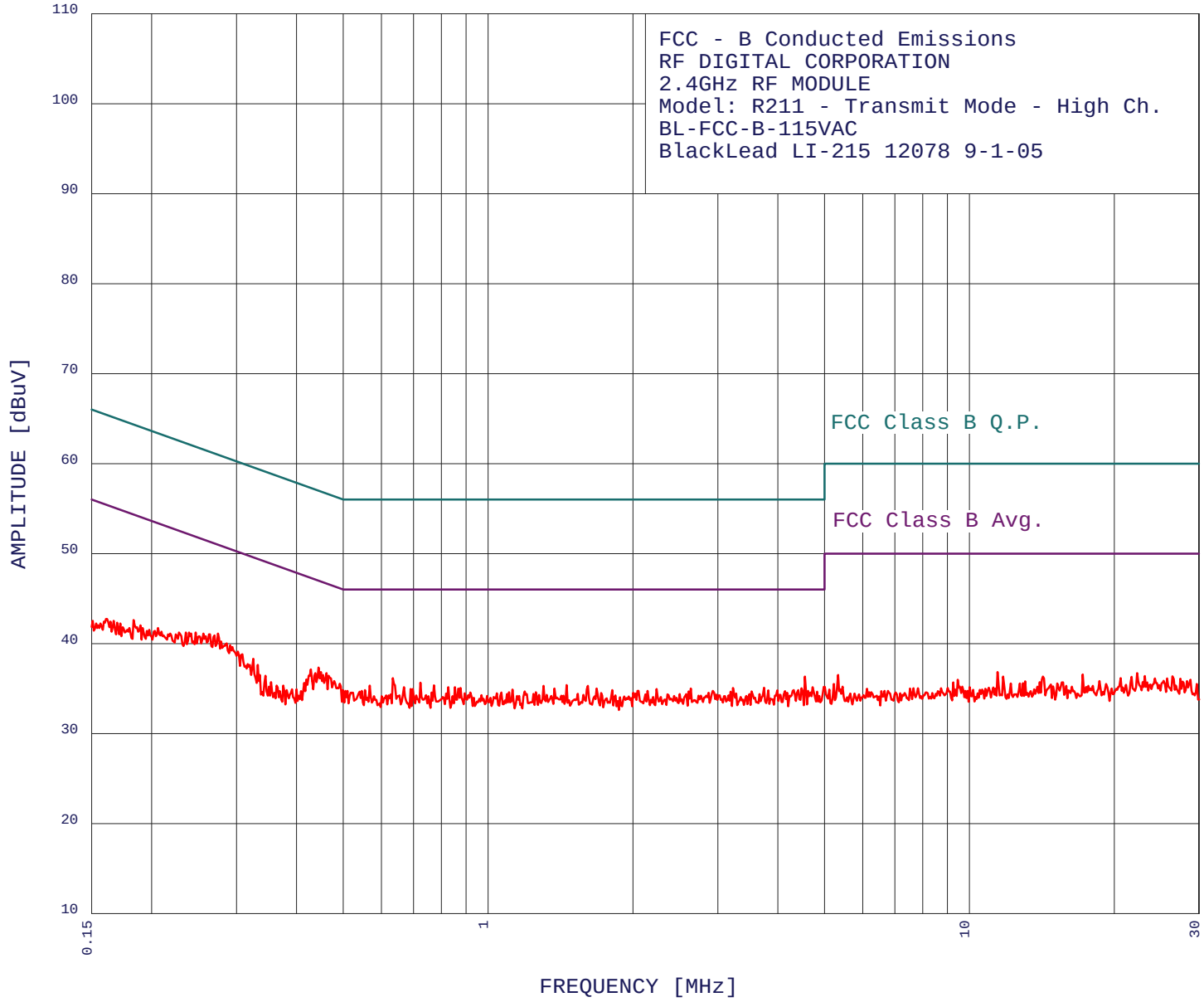
FCC - B Conducted Emissions
RF DIGITAL CORPORATION
2.4GHz RF MODULE
Model: R211 - RECIEVE MODE
BL-FCC-B-115VAC
BlackLead LI-215 12078 9-1-05
TEST ENGINEER : Falguni Patel

30 highest peaks above -50.00 dB of FCC Class B Avg. limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.442	38.72	47.02	-8.30
2	0.466	38.22	46.58	-8.36
3	0.152	47.33	55.91	-8.58
4	0.459	37.92	46.71	-8.79
5	0.479	37.12	46.36	-9.24
6	0.452	37.42	46.85	-9.43
7	3.820	36.19	46.00	-9.81
8	0.492	36.13	46.14	-10.01
9	0.279	40.81	50.85	-10.04
10	0.634	35.94	46.00	-10.06
11	0.291	40.41	50.49	-10.08
12	0.266	41.11	51.24	-10.13
13	1.859	35.62	46.00	-10.38
14	0.297	39.91	50.32	-10.41
15	0.518	35.53	46.00	-10.47
16	0.510	35.53	46.00	-10.47
17	0.243	41.51	52.00	-10.48
18	0.234	41.81	52.30	-10.48
19	2.624	35.29	46.00	-10.71
20	1.197	35.28	46.00	-10.72
21	1.172	35.28	46.00	-10.72
22	0.322	38.91	49.66	-10.75
23	0.801	35.25	46.00	-10.75
24	1.223	35.18	46.00	-10.82
25	0.909	35.16	46.00	-10.84
26	2.568	34.99	46.00	-11.01
27	0.304	39.11	50.14	-11.03
28	0.822	34.95	46.00	-11.05
29	0.683	34.94	46.00	-11.06
30	0.538	34.94	46.00	-11.06

EMISSION LEVEL [dBuV] PEAK 6/16/2006 16:32:00

Graph for Peak



COMPATIBLE ELECTRONICS

COMPATIBLE ELECTRONICS

6/16/2006 16:32:00

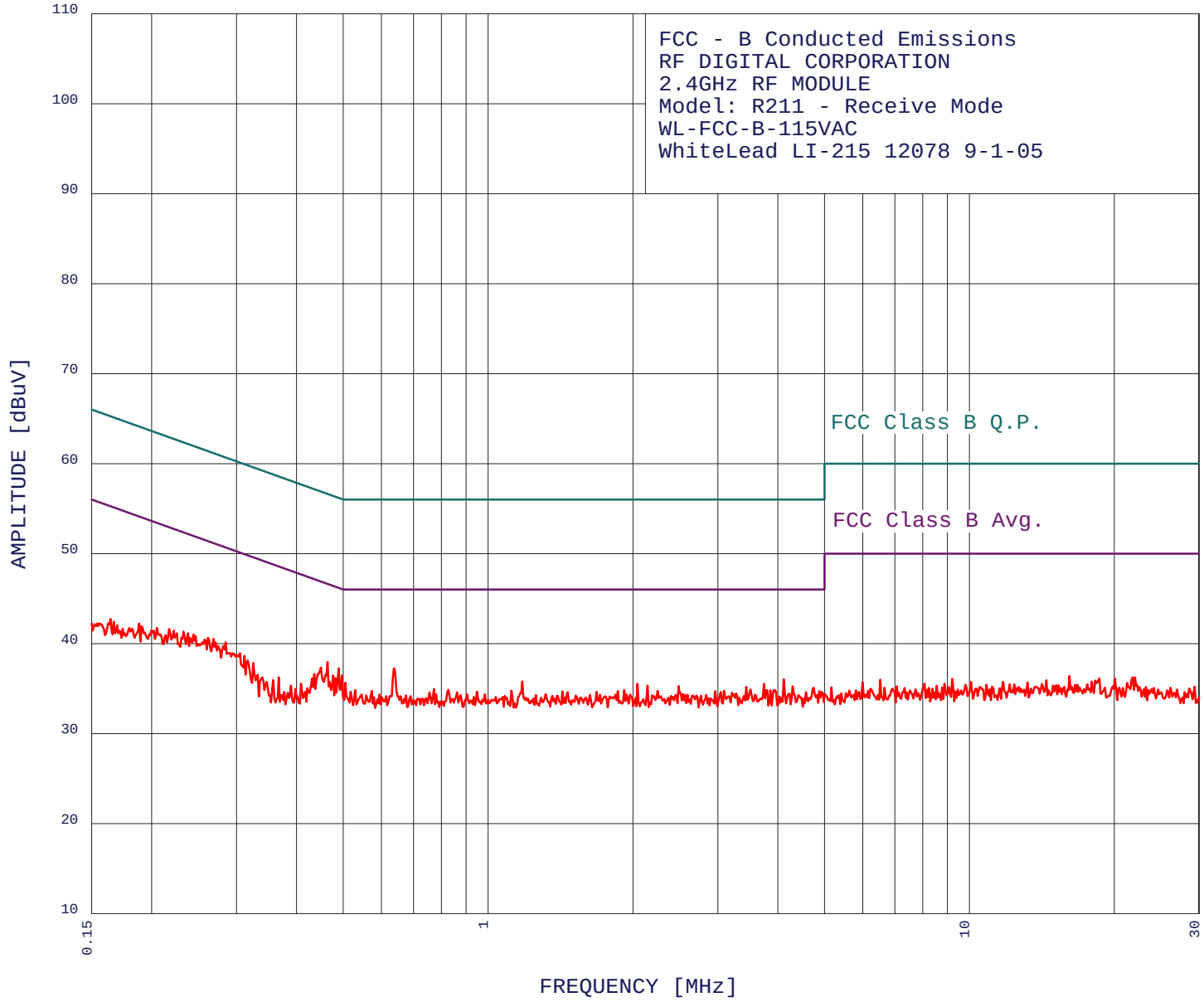
FCC - B Conducted Emissions
RF DIGITAL CORPORATION
2.4GHz RF MODULE
Model: R211 - Transmit Mode - High Ch.
BL-FCC-B-115VAC
BlackLead LI-215 12078 9-1-05
TEST ENGINEER : Falguni Patel

30 highest peaks above -50.00 dB of FCC Class B Avg. limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.445	37.32	46.98	-9.66
2	4.552	36.34	46.00	-9.66
3	0.634	36.14	46.00	-9.86
4	0.275	41.11	50.98	-9.87
5	0.461	36.72	46.67	-9.95
6	0.466	36.42	46.58	-10.16
7	0.428	37.12	47.28	-10.17
8	0.270	40.91	51.11	-10.20
9	0.724	35.65	46.00	-10.35
10	0.256	41.11	51.55	-10.44
11	1.456	35.40	46.00	-10.60
12	0.247	41.21	51.86	-10.65
13	0.771	35.35	46.00	-10.65
14	0.567	35.34	46.00	-10.66
15	1.611	35.31	46.00	-10.69
16	1.304	35.29	46.00	-10.71
17	0.853	35.16	46.00	-10.84
18	0.826	35.15	46.00	-10.85
19	4.722	35.15	46.00	-10.85
20	0.669	35.14	46.00	-10.86
21	0.239	41.21	52.12	-10.91
22	3.741	35.09	46.00	-10.91
23	0.876	35.06	46.00	-10.94
24	3.226	35.05	46.00	-10.95
25	4.480	35.03	46.00	-10.97
26	1.680	35.01	46.00	-10.99
27	2.637	34.99	46.00	-11.01
28	1.374	34.99	46.00	-11.01
29	0.235	41.21	52.25	-11.04
30	2.238	34.95	46.00	-11.05

EMISSION LEVEL [dBuV] PEAK 6/16/2006 16:40:25

Graph for Peak



COMPATIBLE ELECTRONICS

COMPATIBLE ELECTRONICS

6/16/2006 16:40:25

FCC - B Conducted Emissions
RF DIGITAL CORPORATION
2.4 GHz RF MODULE
Model: R211 - Receive Mode
WL-FCC-B-115VAC
WhiteLead LI-215 12078 9-1-05
TEST ENGINEER : Falguni Patel

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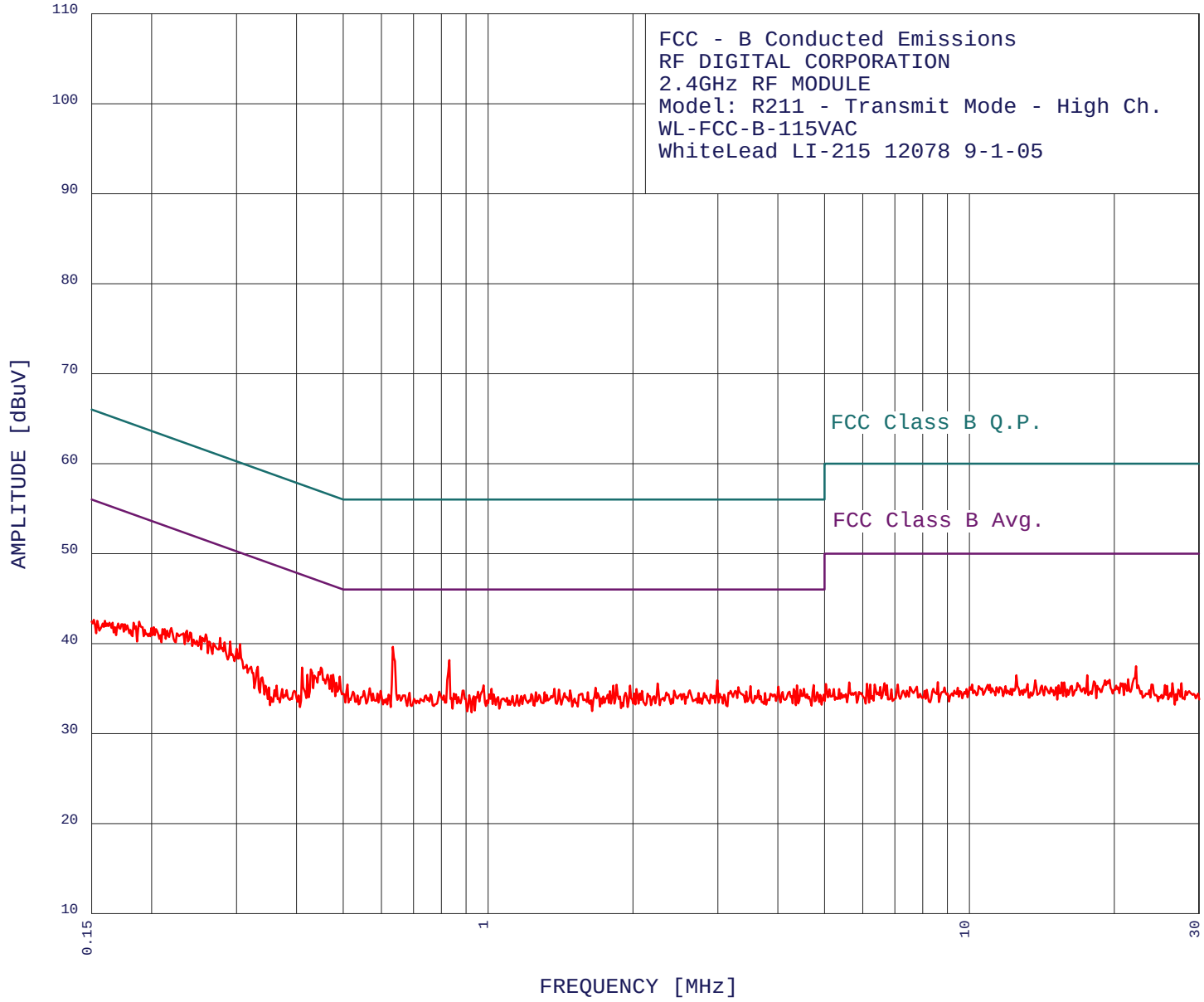
30 highest peaks above -50.00 dB of FCC Class B Avg. limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.464	37.94	46.62	-8.68
2	0.637	37.24	46.00	-8.76
3	0.489	37.24	46.18	-8.95
4	0.449	37.34	46.89	-9.55
5	0.497	36.44	46.05	-9.61
6	0.476	36.44	46.40	-9.97
7	4.114	36.03	46.00	-9.97
8	0.481	36.14	46.32	-10.18
9	1.178	35.77	46.00	-10.23
10	0.505	35.64	46.00	-10.36
11	2.044	35.53	46.00	-10.47
12	3.741	35.49	46.00	-10.51
13	0.435	36.63	47.15	-10.51
14	0.285	40.12	50.67	-10.55
15	0.269	40.52	51.15	-10.63
16	2.145	35.34	46.00	-10.66
17	2.488	35.27	46.00	-10.73
18	4.294	35.25	46.00	-10.75
19	0.262	40.62	51.38	-10.75
20	3.438	35.16	46.00	-10.84
21	4.748	35.09	46.00	-10.91
22	0.244	41.02	51.95	-10.93
23	0.233	41.32	52.34	-11.02
24	0.238	41.12	52.17	-11.05
25	0.771	34.95	46.00	-11.05
26	3.511	34.87	46.00	-11.13
27	0.826	34.85	46.00	-11.15
28	0.530	34.83	46.00	-11.17
29	1.918	34.82	46.00	-11.18
30	3.945	34.81	46.00	-11.19

EMISSION LEVEL [dBuV] PEAK 6/16/2006 16:28:05

Graph for Peak



COMPATIBLE ELECTRONICS

COMPATIBLE ELECTRONICS

6/16/2006 16:28:05

FCC - B Conducted Emissions
RF DIGITAL CORPORATION
2.4GHz RF MODULE
Model: R211 - Transmit Mode - High Channel
WL-FCC-B-115VAC
WhiteLead LI-215 12078 9-1-05
TEST ENGINEER : Falguni Patel

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30 highest peaks above -50.00 dB of FCC Class B Avg. limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.634	39.64	46.00	-6.36
2	0.831	38.15	46.00	-7.85
3	0.449	37.34	46.89	-9.55
4	0.492	36.34	46.14	-9.80
5	0.476	36.54	46.40	-9.87
6	0.471	36.44	46.49	-10.05
7	2.995	35.92	46.00	-10.08
8	0.464	36.54	46.62	-10.08
9	0.428	37.13	47.28	-10.15
10	0.305	39.93	50.10	-10.17
11	0.291	40.23	50.49	-10.27
12	0.277	40.62	50.89	-10.27
13	0.411	37.33	47.63	-10.30
14	0.259	41.02	51.47	-10.44
15	2.250	35.55	46.00	-10.45
16	0.510	35.44	46.00	-10.56
17	1.849	35.41	46.00	-10.59
18	0.283	40.12	50.72	-10.59
19	4.748	35.39	46.00	-10.61
20	0.979	35.36	46.00	-10.64
21	4.384	35.36	46.00	-10.64
22	1.971	35.32	46.00	-10.68
23	1.820	35.31	46.00	-10.69
24	3.511	35.27	46.00	-10.73
25	4.008	35.22	46.00	-10.78
26	0.237	41.42	52.21	-10.79
27	0.300	39.43	50.23	-10.81
28	3.311	35.15	46.00	-10.85
29	0.240	41.22	52.08	-10.86
30	0.252	40.82	51.68	-10.86

BAND EDGES

DATA SHEETS

FCC 15.249

RF Digital Corporation
2.4 GHz RF Module
Model: R211
Band Edges

Date: 6/16/06
Lab: B
Tested By: Benigno Chavez

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2400	71.61	V	74	-2.39	Peak	2.47	180	Z-Axis - Low Channel
2400	41.51	V	54	-12.49	Avg	2.47	180	Z-Axis - Low Channel
2400	72.24	H	74	-1.76	Peak	1.54	180	X-Axis - Low Channel
2400	42.70	H	54	-11.3	Avg	1.54	180	X-Axis - Low Channel
2483.5	77.19	V	74	3.19	Peak	1	180	Y-Axis - High Channel
2483.5	52.86	V	54	-1.14	Avg	1	180	Y-Axis - High Channel
2483.5	74.72	H	74	0.72	Peak	1.78	180	X-Axis - High Channel
2483.5	52.82	H	54	-1.18	Avg	1.78	180	X-Axis - High Channel