FCC PART 15, SUBPART B and C
TEST REPORT

for

2.4 GHz TRANSCEIVER MODULE

MODEL: R24

Prepared for

RF DIGITAL CORPORATION
13715 ALTON PARKWAY
IRVINE, CALIFORNIA 92618

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

MICHAEL CHRISTENSEN

COMPATIBLE ELECTRONICS INC.
114 OLINDA DRIVE
BREA, CALIFORNIA 92823
(714) 579-0500

DATE: AUGUST 12, 2009

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
PAGES	17	2	2	2	15	31	**69**

TABLE OF CONTENTS

Section / Title	PAGE
GENERAL REPORT SUMMARY	***4***
SUMMARY OF TEST RESULTS	***5***
1. PURPOSE	**6**
2. ADMINISTRATIVE DATA	**7**
2.1 Location of Testing	7
2.2 Traceability Statement	7
2.3 Cognizant Personnel	7
2.4 Date Test Sample was Received	7
2.5 Disposition of the Test Sample	7
2.6 Abbreviations and Acronyms	7
3. APPLICABLE DOCUMENTS	**8**
4. DESCRIPTION OF TEST CONFIGURATION	**9**
4.1 Description of Test Configuration - EMI	9
4.1.1 Cable Construction and Termination	10
5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT	**11**
5.1 EUT and Accessory List	11
5.2 EMI Test Equipment	12
6. TEST SITE DESCRIPTION	**13**
6.1 Test Facility Description	13
6.2 EUT Mounting, Bonding and Grounding	13
7. TEST PROCEDURES	**14**
7.1 RF Emissions	14
7.1.1 Conducted Emissions Test	14
7.1.2 Radiated Emissions (Spurious and Harmonics) Test	15
8. CONCLUSIONS	**17**

LIST OF APPENDICES

APPENDIX	TITLE
A	Laboratory Recognitions
B	Modifications to the EUT
C	Additional Models Covered Under This Report
D	Diagrams, Charts, and Photos • Test Setup Diagrams • Radiated and Conducted Emissions Photos • Antenna and Effective Gain Factors
E	Data Sheets

LIST OF FIGURES

FIGURE	TITLE
1	Conducted Emissions Test Setup
2	Plot Map And Layout of Test Site – 3 Meters

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 or any other agency of the U.S. Government.

Device Tested:	2.4 GHz Transceiver Module Model: R24 S/N: N/A
Product Description:	See Expository Statement
Modifications:	The EUT was not modified in order to meet the specifications.
Manufacturer:	RF Digital Corporation 13715 Alton Parkway Irvine, California 92618
Test Dates:	June 22 and 23, 2009
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: 2003
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 CFR Title 47, Part 15, Subpart C, section 15.207 Highest Reading in Relation to Spec Limit: 42.10 dBµV @ 1.184MHz (*U_C = 0.63 dB)
2	Radiated RF Emissions 10 kHz – 25000 MHz (Transmitter Portion)	Complies with the limits of CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.249
3	Radiated RF Emissions 10 kHz – 25000 MHz (Digital and Receiver Portion)	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B. Highest Reading in Relation to Spec Limit: 29.39 dBµV @ 210.394 MHz (*U_C = 1.75 dB)

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the 2.4 GHz Transceiver Module, Model: R24. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 2003. 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, 15.207, 15.209, and 15.249.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B.

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.

Kyle Fujimoto	Test Engineer
Michael Christensen	Lab Manager, Brea Division

2.4 Date Test Sample was Received

The test sample was received prior to the date of testing.

2.5 Disposition of the Test Sample

The test sample has not yet been returned as of the date of this report.

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	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
N/A	Not Applicable

3. APPLICABLE DOCUMENTS

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

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules - Radio frequency devices (including digital devices) – Intentional Radiators
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
FCC Title 47, Part 15 Subpart B	FCC Rules - Radio frequency devices (including digital devices) – Unintentional Radiators

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

The 2.4 GHz Transceiver Module, Model: R24 (EUT) was connected to a power supply PCB via 10 centimeter cables. The power supply PCB was also connected to an AC Adapter via its power port. The EUT was continuously transmitting or receiving depending on the test being performed.

It was determined that the emissions were at their highest level when the EUT was operating in the above configuration. The final emissions data was taken in this mode of operation and any cables were maximized. All initial investigations were performed with the measurement receiver in manual mode scanning the frequency range continuously. Photographs of the test setup are in Appendix D of this report.

4.1.1 Cable Construction and Termination

Cables 1-11 These are 10-centimeter unshielded cables connecting the EUT to the power supply PCB. The cables are hard wired at each end.

Cable 12 This is a 2-meter unshielded cable connecting the power supply PCB to the AC Adapter. The cable has a 1/8 inch power connector at the power supply PCB end and is hard wired into the AC Adapter.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
2.4 GHz TRANSCEIVER MODULE (EUT)	RF DIGITAL CORPORATION	R24	N/A	UYI24
POWER SUPPLY PCB	STAMPTECH	N/A	N/A	N/A
AC ADAPTER	SCEPTRE	U090030D12	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	Hewlett Packard	4530	US91912319	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08768	August 22, 2008	Aug. 22, 2009
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22262	August 22, 2008	Aug. 22, 2009
Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01363	August 22, 2008	Aug. 22, 2009
EMI Receiver	Rohde & Schwarz	ESIB40	100194	September 17, 2008	Sept. 17, 2010
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
RF RADIATED EMISSIONS TEST EQUIPMENT					
Biconical Antenna	Com Power	AB-900	15182	February 23, 2009	Feb. 23, 2010
Log Periodic Antenna	Com Power	AL-100	16241	June 15, 2009	June 15, 2010
Preamplifier	Com-Power	PA-103	1582	January 12, 2009	Jan. 12, 2010
Loop Antenna	Com-Power	AL-130	17089	September 29, 2008	Sept. 29, 2009
Horn Antenna	Com-Power	AH-118	071175	June 27, 2008	June 27, 2010
Microwave Preamplifier	Com Power	PA-122	181921	March 12, 2009	March 12, 2010
Horn Antenna	Com-Power	AH826	71957	December 12, 2007	Dec. 12, 2009
Microwave Preamplifier	Com Power	PA-840	711013	March 12, 2009	March 12, 2010
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
RF RADIATED EMISSIONS TEST EQUIPMENT					
Emissions Program	Compatible Electronics	2.3 (SR19)	N/A	N/A	N/A
LISN	Com Power	LI-215	12076	September 29, 2008	Sept. 29, 2009
LISN	Com Power	LI-215	12090	September 29, 2008	Sept. 29, 2009
Transient Limiter	Com Power	252A910	1	September 26, 2008	Sept. 26, 2009

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 RF Emissions

7.1.1 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: 2003. 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:

Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and CFR Title 47, Part 15, Subpart C, section 15.207.

7.1.2 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 Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, the Com Power Microwave Preamplifier Model: PA-122 was used for frequencies from 1 GHz to 18 GHz, and the Com Power Microwave Preamplifier Model: PA-840 was used for frequencies above 18 GHz. The spectrum analyzer and EMI Receiver were used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer 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 to keep the amplitude reading calibrated.

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

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 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: 2003. 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 by the Radiated Emission Manual Test software. 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.

Radiated Emissions (Spurious and Harmonics) Test (con't)

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 the final test data.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, Sections 15.209 and 15.249.

8. CONCLUSIONS

The 2.4 GHz Transceiver Module Model: R24 meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C, sections 15.205, 15.207, 15.209, and 15.249.

Note: For the unintentional radiator and receiver portion of the test, the EUT was within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B.

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

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B and FCC 15.249 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.

There were not modifications 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 Transceiver Module Model: R24 S/N: N/A

No additional models were covered under this report.

APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

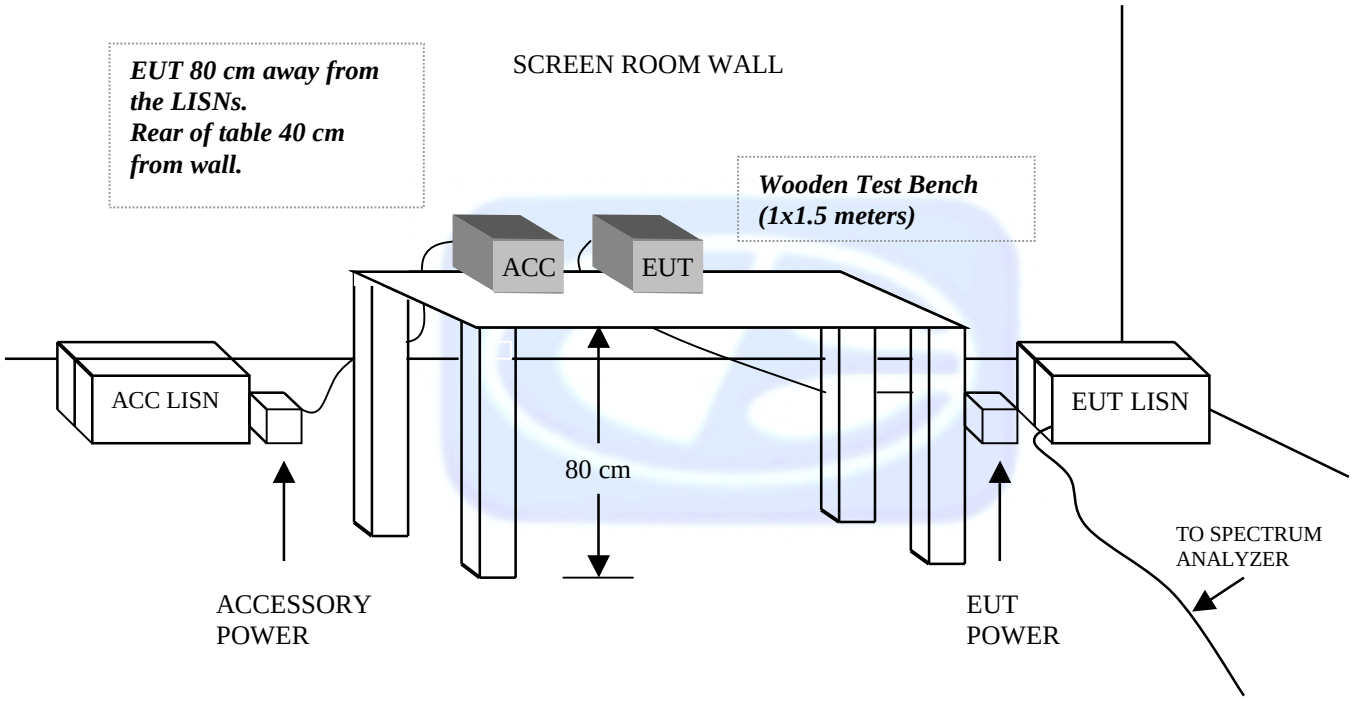
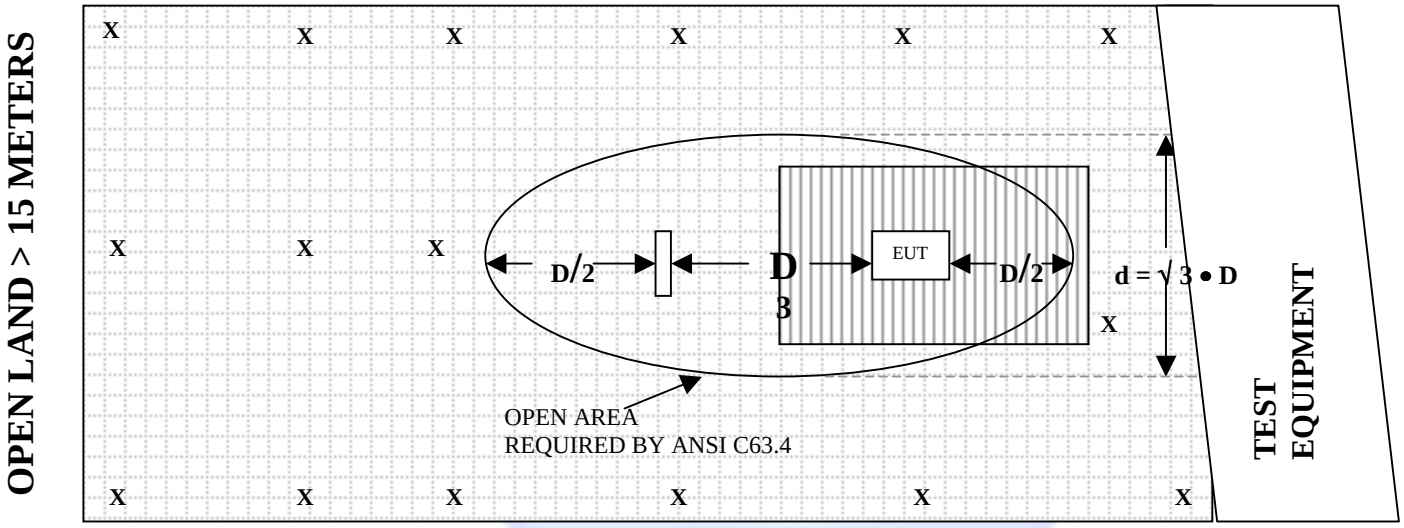


FIGURE 2: PLOT MAP AND LAYOUT OF RADIATED SITE – 3 METERS

OPEN LAND > 15 METERS



OPEN LAND > 15 METERS

X = GROUND RODS	= GROUND SCREEN
D = TEST DISTANCE (meters)	= WOOD COVER

COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15182

CALIBRATION DATE: FEBRUARY 23, 2009

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	13.1	100	10.6
35	10.1	120	12.7
40	9.5	140	11.7
45	10.9	160	12.6
50	11.3	180	15.7
60	8.4	200	16.8
70	8.1	250	15.0
80	5.7	275	17.5
90	7.3	300	19.2

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16241

CALIBRATION DATE: JUNE 15, 2009

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	13.3	700	19.8
400	15.2	800	21.0
500	16.7	900	21.3
600	18.9	1000	21.8

COM POWER AH-118

HORN ANTENNA

S/N: 071175

CALIBRATION DATE: JUNE 27, 2008

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	24.5	10.0	39.4
1.5	25.4	10.5	39.7
2.0	28.3	11.0	39.0
2.5	28.9	11.5	40.0
3.0	29.7	12.0	39.7
3.5	30.8	12.5	41.7
4.0	31.4	13.0	42.7
4.5	32.6	13.5	41.2
5.0	33.7	14.0	41.6
5.5	34.4	14.5	43.2
6.0	34.7	15.0	42.3
6.5	35.4	15.5	39.3
7.0	37.0	16.0	41.7
7.5	37.4	16.5	39.6
8.0	37.6	17.0	43.0
8.5	37.6	17.5	47.1
9.0	38.5	18.0	46.2
9.5	38.6		

COM-POWER PA-103

PREAMPLIFIER

S/N: 1582

CALIBRATION DATE: JANUARY 12, 2009

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	33.6	300	33.4
40	33.7	350	33.2
50	33.6	400	33.2
60	33.5	450	33.1
70	33.6	500	32.9
80	33.6	550	33.0
90	33.7	600	32.8
100	33.7	650	33.0
125	33.5	700	32.7
150	33.6	750	32.9
175	33.7	800	32.6
200	33.4	850	32.6
225	33.4	900	32.6
250	33.4	950	32.4
275	33.3	1000	32.7

COM-POWER PA-122

PREAMPLIFIER

S/N: 181921

CALIBRATION DATE: MARCH 12, 2009

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	36.46	10.0	35.06
1.5	35.36	10.5	34.82
2.0	34.76	11.0	33.12
2.5	34.94	11.5	34.33
3.0	34.59	12.0	34.75
3.5	34.55	12.5	33.94
4.0	34.25	13.0	35.50
4.5	33.89	13.5	34.89
5.0	34.22	14.0	36.56
5.5	34.81	14.5	36.06
6.0	35.74	15.0	36.67
6.5	36.51	15.5	36.84
7.0	36.66	16.0	34.31
7.5	35.72	16.5	35.11
8.0	33.28	17.0	35.35
8.5	33.11	17.5	34.11
9.0	34.71	18.0	33.88
9.5	35.50	18.5	32.20

COM-POWER PA-840

MICROWAVE PREAMPLIFIER

S/N: 711013

CALIBRATION DATE: MARCH 12, 2009

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	25.72	29.5	27.11
18.5	25.46	30.0	27.19
19.0	25.19	30.5	27.12
19.5	24.58	31.0	26.76
20.0	23.94	31.5	26.52
20.5	23.48	32.0	26.11
21.0	23.22	32.5	26.35
21.5	23.34	33.0	26.15
22.0	23.62	33.5	26.14
22.5	23.74	34.0	25.47
23.0	24.40	34.5	25.39
23.5	24.60	35.0	25.05
24.0	25.15	35.5	25.18
24.5	25.38	36.0	24.63
25.0	26.00	36.5	25.22
25.5	25.92	37.0	26.20
26.0	26.47	37.5	26.46
26.5	27.19	38.0	25.44
27.0	27.60	38.5	24.71
27.5	26.51	39.0	23.50
28.0	26.46	39.5	23.46
28.5	26.36	40.0	22.37
29.0	26.72		

COM-POWER AH826

HORN ANTENNA

S/N: 71957

CALIBRATION DATE: DECEMBER 12, 2007

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	33.5	22.5	35.5
18.5	33.5	23.0	35.9
19.0	34.0	23.5	35.7
19.5	34.0	24.0	35.6
20.0	34.3	24.5	36.0
20.5	34.9	25.0	36.2
21.0	34.7	25.5	36.1
21.5	35.0	26.0	36.2
22.0	35.0	26.5	35.7

COM-POWER AL-130

LOOP ANTENNA

S/N: 17089

CALIBRATION DATE: SEPTEMBER 29, 2008

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-41.57	9.93
0.01	-42.06	9.44
0.02	-42.43	9.07
0.05	-42.50	9.00
0.07	-42.10	9.40
0.1	-42.03	9.47
0.2	-44.50	7.00
0.3	-41.93	9.57
0.5	-41.90	9.60
0.7	-41.73	9.77
1	-41.23	10.27
2	-40.90	10.60
3	-41.20	10.30
4	-41.30	10.20
5	-40.70	10.80
10	-41.10	10.40
15	-42.17	9.33
20	-42.00	9.50
25	-42.20	9.30
30	-43.10	8.40

FRONT VIEW

RF DIGITAL
2.4 GHz TRANSCEIVER MODULE
MODEL: R24
FCC SUBPART B AND C – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

RF DIGITAL
2.4 GHz TRANSCEIVER MODULE
MODEL: R24
FCC SUBPART B AND C – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

RF DIGITAL
2.4 GHz TRANSCEIVER MODULE
MODEL: R24
FCC SUBPART B AND C – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

RF DIGITAL
2.4 GHz TRANSCEIVER MODULE
MODEL: R24
FCC SUBPART B AND C – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISISONS

DATA SHEETS

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	83.34	V	114	-30.66	Peak	1.25	180	
2402	81.64	V	94	-12.36	Avg	1.25	180	
4804	47.83	V	74	-26.17	Peak	1.25	135	
4804	41.73	V	54	-12.27	Avg	1.25	135	
7206	45.02	V	74	-28.98	Peak	1.35	150	
7206	33.76	V	54	-20.24	Avg	1.35	150	
9608		V	74	-74	Peak			**No Emissions**
9608		V	54	-54	Avg			**Detected**
12010		V	74	-74	Peak			**No Emissions**
12010		V	54	-54	Avg			**Detected**
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 Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	86.39	H	114	-27.61	Peak	1.15	135	
2402	85.73	H	94	-8.27	Avg	1.15	135	
4804	49.87	H	74	-24.13	Peak	1.02	135	
4804	45.08	H	54	-8.92	Avg	1.02	135	
7206	44.56	H	74	-29.44	Peak	1	135	
7206	33.78	H	54	-20.22	Avg	1	135	
9608		H	74	-74	Peak			**No Emissions**
9608		H	54	-54	Avg			**Detected**
12010		H	74	-74	Peak			**No Emissions**
12010		H	54	-54	Avg			**Detected**
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 Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	90.57	V	114	-23.43	Peak	1.02	135	
2402	89.85	V	94	-4.15	Avg	1.02	135	
4804	48.53	V	74	-25.47	Peak	1.06	135	
4804	44.16	V	54	-9.84	Avg	1.06	135	
7206	47.13	V	74	-26.87	Peak	1.15	150	
7206	36.17	V	54	-17.83	Avg	1.15	150	
9608		V	74	-74	Peak			**No Emissions**
9608		V	54	-54	Avg			**Detected**
12010		V	74	-74	Peak			**No Emissions**
12010		V	54	-54	Avg			**Detected**
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 Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	88.97	H	114	-25.03	Peak	1.01	180	
2402	88.35	H	94	-5.65	Avg	1.01	180	
4804	50.45	H	74	-23.55	Peak	1.15	180	
4804	46.37	H	54	-7.63	Avg	1.15	180	
7206	46.93	H	74	-27.07	Peak	1.26	135	
7206	36.71	H	54	-17.29	Avg	1.26	135	
9608		H	74	-74	Peak			**No Emissions**
9608		H	54	-54	Avg			**Detected**
12010		H	74	-74	Peak			**No Emissions**
12010		H	54	-54	Avg			**Detected**
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 Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	82.08	V	114	-31.92	Peak	1.05	90	
2402	81.48	V	94	-12.52	Avg	1.05	90	
4804	51.28	V	74	-22.72	Peak	1.12	180	
4804	47.21	V	54	-6.79	Avg	1.12	180	
7206	46.59	V	74	-27.41	Peak	1.18	135	
7206	36.37	V	54	-17.63	Avg	1.18	135	
9608		V	74	-74	Peak			**No Emissions**
9608		V	54	-54	Avg			**Detected**
12010		V	74	-74	Peak			**No Emissions**
12010		V	54	-54	Avg			**Detected**
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 Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2402	83.34	H	114	-30.66	Peak	1.05	90	
2402	82.31	H	94	-11.69	Avg	1.05	90	
4804	48.35	H	74	-25.65	Peak	1.06	135	
4804	42.34	H	54	-11.66	Avg	1.06	135	
7206	46.92	H	74	-27.08	Peak	1.08	150	
7206	35.64	H	54	-18.36	Avg	1.08	150	
9608		H	74	-74	Peak			**No Emissions**
9608		H	54	-54	Avg			**Detected**
12010		H	74	-74	Peak			**No Emissions**
12010		H	54	-54	Avg			**Detected**
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 Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2442	83.63	V	114	-30.37	Peak	1.52	315	
2442	83.26	V	94	-10.74	Avg	1.52	315	
4884	47.31	V	74	-26.69	Peak	1.36	225	
4884	42.84	V	54	-11.16	Avg	1.36	225	
7326	42.96	V	74	-31.04	Peak	1.58	225	
7326	31.69	V	54	-22.31	Avg	1.58	225	
9768		V	74	-74	Peak			**No Emission**
9768		V	54	-54	Avg			**Detected**
12210		V	74	-74	Peak			**No Emission**
12210		V	54	-54	Avg			**Detected**
14652		V	74	-74	Peak			**No Emission**
14652		V	54	-54	Avg			**Detected**
17094		V	74	-74	Peak			**No Emission**
17094		V	54	-54	Avg			**Detected**
19536		V	74	-74	Peak			**No Emission**
19536		V	54	-54	Avg			**Detected**
21978		V	74	-74	Peak			**No Emission**
21978		V	54	-54	Avg			**Detected**
24420		V	74	-74	Peak			**No Emission**
24420		V	54	-54	Avg			**Detected**

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2442	85.51	H	114	-28.49	Peak	1.05	135	
2442	85.19	H	94	-8.81	Avg	1.05	135	
4884	49.11	H	74	-24.89	Peak	1.25	135	
4884	43.88	H	54	-10.12	Avg	1.25	135	
7326	44.97	H	74	-29.03	Peak	1.36	150	
7326	33.86	H	54	-20.14	Avg	1.36	150	
9768		H	74	-74	Peak			**No Emission**
9768		H	54	-54	Avg			**Detected**
12210		H	74	-74	Peak			**No Emission**
12210		H	54	-54	Avg			**Detected**
14652		H	74	-74	Peak			**No Emission**
14652		H	54	-54	Avg			**Detected**
17094		H	74	-74	Peak			**No Emission**
17094		H	54	-54	Avg			**Detected**
19536		H	74	-74	Peak			**No Emission**
19536		H	54	-54	Avg			**Detected**
21978		H	74	-74	Peak			**No Emission**
21978		H	54	-54	Avg			**Detected**
24420		H	74	-74	Peak			**No Emission**
24420		H	54	-54	Avg			**Detected**

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2442	91.38	V	114	-22.62	Peak	1.06	135	
2442	91.01	V	94	-2.99	Avg	1.06	135	
4884	49.75	V	74	-24.25	Peak	1.35	90	
4884	45.05	V	54	-8.95	Avg	1.35	90	
7326	47.17	V	74	-26.83	Peak	1.58	150	
7326	34.73	V	54	-19.27	Avg	1.58	150	
9768		V	74	-74	Peak			**No Emission**
9768		V	54	-54	Avg			**Detected**
12210		V	74	-74	Peak			**No Emission**
12210		V	54	-54	Avg			**Detected**
14652		V	74	-74	Peak			**No Emission**
14652		V	54	-54	Avg			**Detected**
17094		V	74	-74	Peak			**No Emission**
17094		V	54	-54	Avg			**Detected**
19536		V	74	-74	Peak			**No Emission**
19536		V	54	-54	Avg			**Detected**
21978		V	74	-74	Peak			**No Emission**
21978		V	54	-54	Avg			**Detected**
24420		V	74	-74	Peak			**No Emission**
24420		V	54	-54	Avg			**Detected**

FCC 15.249

RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2442	86.94	H	114	-27.06	Peak	1.03	135	
2442	86.23	H	94	-7.77	Avg	1.03	135	
4884	49.11	H	74	-24.89	Peak	1.05	150	
4884	43.89	H	54	-10.11	Avg	1.05	150	
7326	44.81	H	74	-29.19	Peak	1.06	135	
7326	33.64	H	54	-20.36	Avg	1.06	135	
9768		H	74	-74	Peak			**No Emission**
9768		H	54	-54	Avg			**Detected**
12210		H	74	-74	Peak			**No Emission**
12210		H	54	-54	Avg			**Detected**
14652		H	74	-74	Peak			**No Emission**
14652		H	54	-54	Avg			**Detected**
17094		H	74	-74	Peak			**No Emission**
17094		H	54	-54	Avg			**Detected**
19536		H	74	-74	Peak			**No Emission**
19536		H	54	-54	Avg			**Detected**
21978		H	74	-74	Peak			**No Emission**
21978		H	54	-54	Avg			**Detected**
24420		H	74	-74	Peak			**No Emission**
24420		H	54	-54	Avg			**Detected**

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2442	81.65	V	114	-32.35	Peak	1.35	150	
2442	81.25	V	94	-12.75	Avg	1.35	150	
4884	49.34	V	74	-24.66	Peak	1.25	175	
4884	46.47	V	54	-7.53	Avg	1.25	175	
7326	45.64	V	74	-28.36	Peak	1.05	175	
7326	34.56	V	54	-19.44	Avg	1.05	175	
9768		V	74	-74	Peak			**No Emission**
9768		V	54	-54	Avg			**Detected**
12210		V	74	-74	Peak			**No Emission**
12210		V	54	-54	Avg			**Detected**
14652		V	74	-74	Peak			**No Emission**
14652		V	54	-54	Avg			**Detected**
17094		V	74	-74	Peak			**No Emission**
17094		V	54	-54	Avg			**Detected**
19536		V	74	-74	Peak			**No Emission**
19536		V	54	-54	Avg			**Detected**
21978		V	74	-74	Peak			**No Emission**
21978		V	54	-54	Avg			**Detected**
24420		V	74	-74	Peak			**No Emission**
24420		V	54	-54	Avg			**Detected**

FCC 15.249

RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2442	83.15	H	114	-30.85	Peak	1.25	135	
2442	81.84	H	94	-12.16	Avg	1.25	135	
4884	46.71	H	74	-27.29	Peak	1.25	225	
4884	41.52	H	54	-12.48	Avg	1.25	225	
7326	44.65	H	74	-29.35	Peak	1.36	135	
7326	33.29	H	54	-20.71	Avg	1.36	135	
9768		H	74	-74	Peak			**No Emission**
9768		H	54	-54	Avg			**Detected**
12210		H	74	-74	Peak			**No Emission**
12210		H	54	-54	Avg			**Detected**
14652		H	74	-74	Peak			**No Emission**
14652		H	54	-54	Avg			**Detected**
17094		H	74	-74	Peak			**No Emission**
17094		H	54	-54	Avg			**Detected**
19536		H	74	-74	Peak			**No Emission**
19536		H	54	-54	Avg			**Detected**
21978		H	74	-74	Peak			**No Emission**
21978		H	54	-54	Avg			**Detected**
24420		H	74	-74	Peak			**No Emission**
24420		H	54	-54	Avg			**Detected**

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2481	88.02	V	114	-25.98	Peak	1.05	135	
2481	87.67	V	94	-6.33	Avg	1.05	135	
4962	48.32	V	74	-25.68	Peak	1.15	135	
4962	43.45	V	54	-10.55	Avg	1.15	135	
7443	47.13	V	74	-26.87	Peak	1.25	150	
7443	35.09	V	54	-18.91	Avg	1.25	150	
9924		V	74	-74	Peak			**No Emission**
9924		V	54	-54	Avg			**Detected**
12405		V	74	-74	Peak			**No Emission**
12405		V	54	-54	Avg			**Detected**
14886		V	74	-74	Peak			**No Emission**
14886		V	54	-54	Avg			**Detected**
17367		V	74	-74	Peak			**No Emission**
17367		V	54	-54	Avg			**Detected**
19848		V	74	-74	Peak			**No Emission**
19848		V	54	-54	Avg			**Detected**
22329		V	74	-74	Peak			**No Emission**
22329		V	54	-54	Avg			**Detected**
24810		V	74	-74	Peak			**No Emission**
24810		V	54	-54	Avg			

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2481	89.99	H	114	-24.01	Peak	1.02	135	
2481	89.56	H	94	-4.44	Avg	1.02	135	
4962	49.31	H	74	-24.69	Peak	1.05	180	
4962	44.51	H	54	-9.49	Avg	1.05	180	
7443	46.66	H	74	-27.34	Peak	1.12	135	
7443	35.97	H	54	-18.03	Avg	1.12	135	
9924		H	74	-74	Peak			**No Emission**
9924		H	54	-54	Avg			**Detected**
12405		H	74	-74	Peak			**No Emission**
12405		H	54	-54	Avg			**Detected**
14886		H	74	-74	Peak			**No Emission**
14886		H	54	-54	Avg			**Detected**
17367		H	74	-74	Peak			**No Emission**
17367		H	54	-54	Avg			**Detected**
19848		H	74	-74	Peak			**No Emission**
19848		H	54	-54	Avg			**Detected**
22329		H	74	-74	Peak			**No Emission**
22329		H	54	-54	Avg			**Detected**
24810		H	74	-74	Peak			**No Emission**
24810		H	54	-54	Avg			**Detected**

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2481	92.08	V	114	-21.92	Peak	1.52	135	
2481	91.47	V	94	-2.53	Avg	1.52	135	
4962	48.57	V	74	-25.43	Peak	1.06	150	
4962	44.45	V	54	-9.55	Avg	1.06	150	
7443	44.35	V	74	-29.65	Peak	1.08	150	
7443	33.47	V	54	-20.53	Avg	1.08	150	
9924		V	74	-74	Peak			**No Emission**
9924		V	54	-54	Avg			**Detected**
12405		V	74	-74	Peak			**No Emission**
12405		V	54	-54	Avg			**Detected**
14886		V	74	-74	Peak			**No Emission**
14886		V	54	-54	Avg			**Detected**
17367		V	74	-74	Peak			**No Emission**
17367		V	54	-54	Avg			**Detected**
19848		V	74	-74	Peak			**No Emission**
19848		V	54	-54	Avg			**Detected**
22329		V	74	-74	Peak			**No Emission**
22329		V	54	-54	Avg			**Detected**
24810		V	74	-74	Peak			**No Emission**
24810		V	54	-54	Avg			**Detected**

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2481	90.49	H	114	-23.51	Peak	1.25	135	
2481	90.12	H	94	-3.88	Avg	1.25	135	
4962	49.01	H	74	-24.99	Peak	1.35	150	
4962	45.01	H	54	-8.99	Avg	1.35	150	
7443	44.53	H	74	-29.47	Peak	1.06	150	
7443	33.59	H	54	-20.41	Avg	1.06	150	
9924		H	74	-74	Peak			**No Emission**
9924		H	54	-54	Avg			**Detected**
12405		H	74	-74	Peak			**No Emission**
12405		H	54	-54	Avg			**Detected**
14886		H	74	-74	Peak			**No Emission**
14886		H	54	-54	Avg			**Detected**
17367		H	74	-74	Peak			**No Emission**
17367		H	54	-54	Avg			**Detected**
19848		H	74	-74	Peak			**No Emission**
19848		H	54	-54	Avg			**Detected**
22329		H	74	-74	Peak			**No Emission**
22329		H	54	-54	Avg			**Detected**
24810		H	74	-74	Peak			**No Emission**
24810		H	54	-54	Avg			**Detected**

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2481	84.47	V	114	-29.53	Peak	1.05	135	
2481	84.19	V	94	-9.81	Avg	1.05	135	
4962	49.49	V	74	-24.51	Peak	1.25	135	
4962	46.71	V	54	-7.29	Avg	1.25	135	
7443	44.21	V	74	-29.79	Peak	1.16	135	
7443	33.51	V	54	-20.49	Avg	1.16	135	
9924		V	74	-74	Peak			**No Emission**
9924		V	54	-54	Avg			**Detected**
12405		V	74	-74	Peak			**No Emission**
12405		V	54	-54	Avg			**Detected**
14886		V	74	-74	Peak			**No Emission**
14886		V	54	-54	Avg			**Detected**
17367		V	74	-74	Peak			**No Emission**
17367		V	54	-54	Avg			**Detected**
19848		V	74	-74	Peak			**No Emission**
19848		V	54	-54	Avg			**Detected**
22329		V	74	-74	Peak			**No Emission**
22329		V	54	-54	Avg			**Detected**
24810		V	74	-74	Peak			**No Emission**
24810		V	54	-54	Avg			**Detected**

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2481	84.69	H	114	-29.31	Peak	1.06	135	
2481	84.14	H	94	-9.86	Avg	1.06	135	
4962	46.37	H	74	-27.63	Peak	1.52	135	
4962	40.54	H	54	-13.46	Avg	1.52	135	
7443	44.74	H	74	-29.26	Peak	1.58	150	
7443	34.51	H	54	-19.49	Avg	1.58	150	
9924		H	74	-74	Peak			**No Emission**
9924		H	54	-54	Avg			**Detected**
12405		H	74	-74	Peak			**No Emission**
12405		H	54	-54	Avg			**Detected**
14886		H	74	-74	Peak			**No Emission**
14886		H	54	-54	Avg			**Detected**
17367		H	74	-74	Peak			**No Emission**
17367		H	54	-54	Avg			**Detected**
19848		H	74	-74	Peak			**No Emission**
19848		H	54	-54	Avg			**Detected**
22329		H	74	-74	Peak			**No Emission**
22329		H	54	-54	Avg			**Detected**
24810		H	74	-74	Peak			**No Emission**
24810		H	54	-54	Avg			**Detected**

FCC 15.249

RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Digital Portion and Non-Harmonic Emissions on the Transmitter

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions Found for the
								Digital Portion
								from 1 GHz to 25000 MHz
								for both Vertical and
								Horizontal Polarizations
								No Non Harmonic
								Emissions Found
								for the Tx Mode
								from 1 GHz to 25 GHz
								for both Vertical and
								Horizontal Polarizations
								Investigated in the
								X, Y, and Z-Axis

COMPATIBLE
ELECTRONICS

Test Location : Compatible Electronics Page : 1/1
Customer : RF DIGITAL Date : 6/23/2009
Manufacturer : RF DIGITAL Time : 8:23:41
Eut name : 2.4 GHZ TRANSCEIVER MODULE Lab : A
Model : R24 Test Distance : 3.0 Meters
Serial # : PCB#: R285
Specification : FCC B
Distance correction factor (20 * log(test/spec) : 0.00
Test Mode : HORIZONTAL AND VERTICAL
10K - 1000MHz
TESTED BY: ALEX BENITEZ

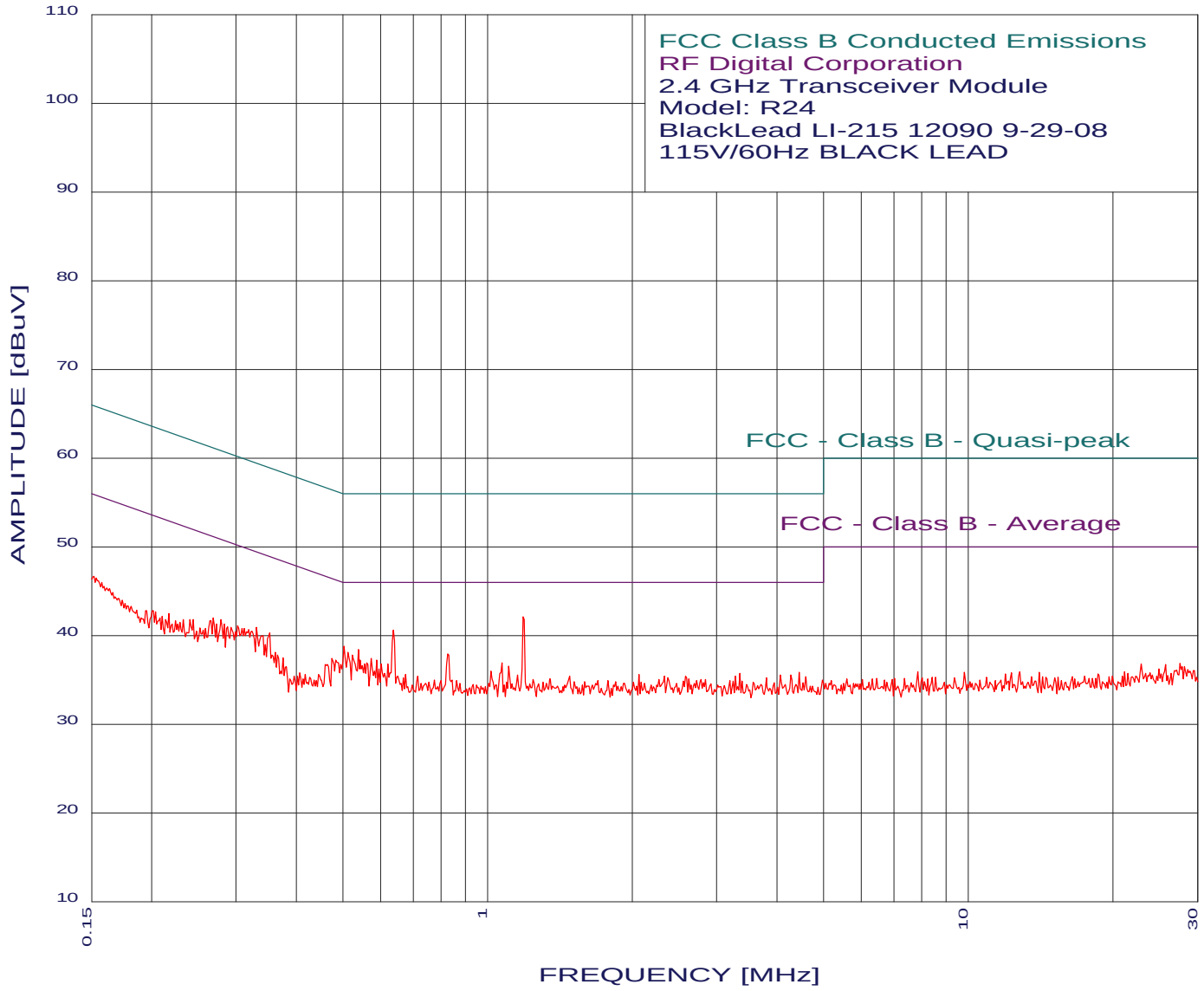
Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	Limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
1V	220.420	40.50	3.40	16.02	33.40	26.52	46.00	-19.48
2V	210.394	43.00	3.40	16.39	33.40	29.39	43.50	-14.11
3V	230.449	42.60	3.49	15.66	33.40	28.35	46.00	-17.65
4V	225.398	40.10	3.41	15.84	33.40	25.94	46.00	-20.06
5H	230.434	40.20	3.49	15.66	33.40	25.95	46.00	-20.05
6H	220.426	39.80	3.40	16.02	33.40	25.82	46.00	-20.18
	Above readings were taken in the X-Axis.							
7V	220.427	39.60	3.40	16.02	33.40	25.62	46.00	-20.38
8V	230.449	39.70	3.49	15.66	33.40	25.45	46.00	-20.55
	Above readings were taken in the Y-Axis.							

CONDUCTED EMISSIONS

DATA SHEETS

EMISSION LEVEL [dBuV] PEAK
Graph forPeak

6/23/2009 12:36:45



COMPATIBLE ELECTRONICS

6/23/2009 12:36:45

RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24
115V/60Hz BLACK LEAD
TEST ENGINEER : Alex Benitez

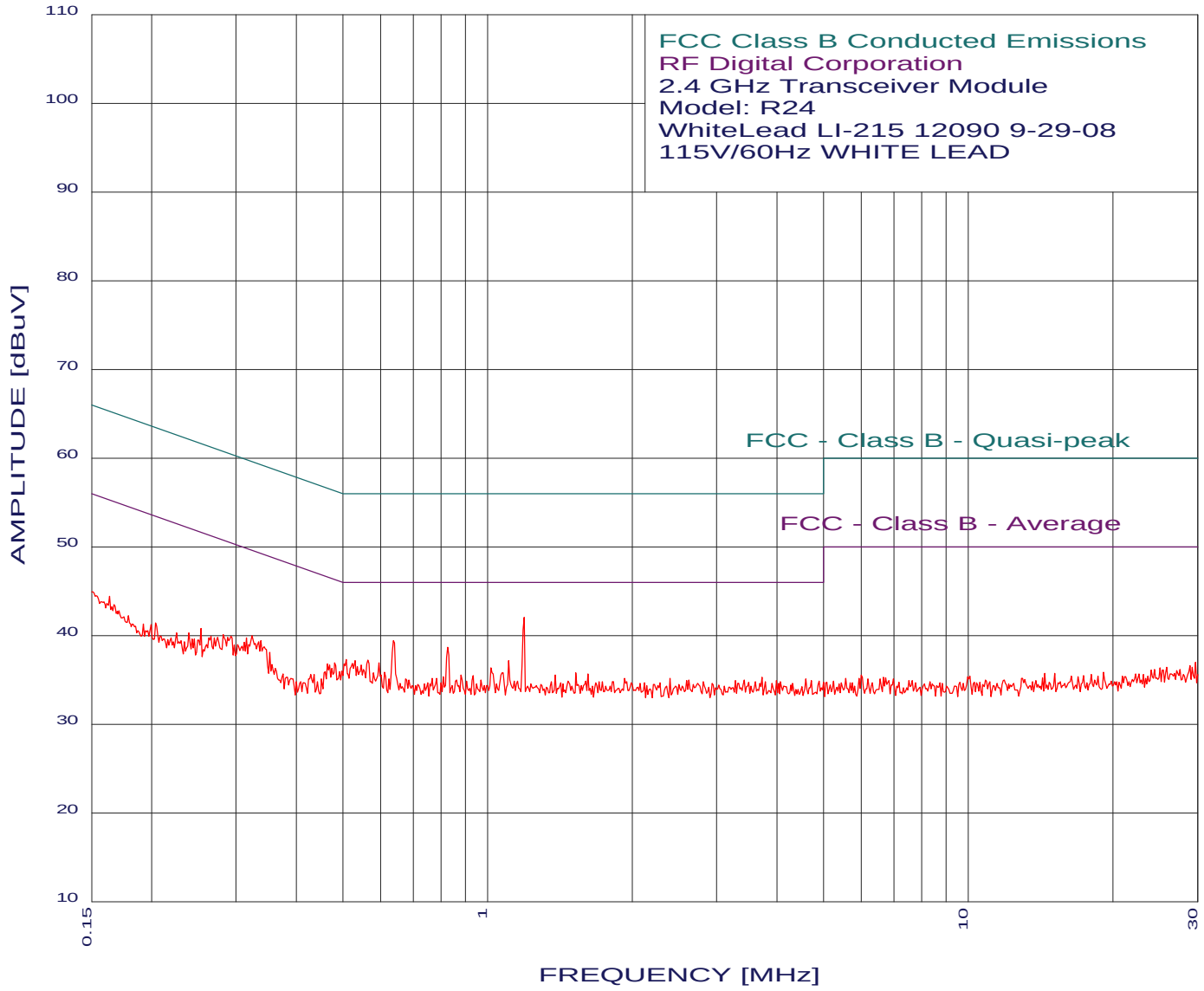
---

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

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	1.184	42.10	46.00	-3.90
2	0.637	40.60	46.00	-5.40
3	0.502	38.79	46.00	-7.21
4	0.538	38.39	46.00	-7.61
5	0.513	38.09	46.00	-7.91
6	0.826	37.90	46.00	-8.10
7	0.524	37.79	46.00	-8.21
8	0.331	40.88	49.44	-8.56
9	0.573	37.39	46.00	-8.61
10	0.352	40.28	48.91	-8.63
11	0.589	37.19	46.00	-8.81
12	0.544	37.19	46.00	-8.81
13	0.474	37.39	46.45	-9.05
14	0.279	41.78	50.85	-9.07
15	0.484	37.19	46.27	-9.08
16	1.072	36.90	46.00	-9.10
17	0.561	36.89	46.00	-9.11
18	0.302	41.08	50.19	-9.11
19	0.269	41.98	51.15	-9.18
20	0.341	39.98	49.18	-9.20
21	0.621	36.80	46.00	-9.20
22	0.601	36.79	46.00	-9.21
23	0.555	36.79	46.00	-9.21
24	0.283	41.28	50.72	-9.44
25	1.106	36.50	46.00	-9.50
26	0.266	41.68	51.24	-9.57
27	0.293	40.88	50.45	-9.57
28	0.288	40.98	50.58	-9.60
29	0.273	41.28	51.02	-9.75
30	0.595	36.19	46.00	-9.81

EMISSION LEVEL [dBuV] PEAK
Graph forPeak

6/23/2009 12:31:21



COMPATIBLE ELECTRONICS

6/23/2009 12:31:21

RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24
115V/60Hz WHITE LEAD
TEST ENGINEER : Alex Benitez

---

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

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	1.191	42.06	46.00	-3.94
2	0.637	39.38	46.00	-6.62
3	0.826	38.65	46.00	-7.35
4	0.508	37.27	46.00	-8.73
5	0.564	37.22	46.00	-8.78
6	0.530	37.17	46.00	-8.83
7	1.106	37.15	46.00	-8.85
8	0.595	36.88	46.00	-9.12
9	0.547	36.63	46.00	-9.37
10	0.481	36.88	46.32	-9.44
11	0.324	39.99	49.62	-9.63
12	1.016	36.35	46.00	-9.65
13	0.464	36.78	46.62	-9.84
14	0.338	39.39	49.26	-9.87
15	0.611	35.86	46.00	-10.14
16	0.315	39.69	49.84	-10.14
17	1.528	35.76	46.00	-10.24
18	1.077	35.75	46.00	-10.25
19	1.620	35.66	46.00	-10.34
20	1.382	35.56	46.00	-10.44
21	0.881	35.55	46.00	-10.45
22	0.934	35.45	46.00	-10.55
23	0.293	39.89	50.45	-10.56
24	0.809	35.35	46.00	-10.65
25	0.282	40.09	50.76	-10.67
26	3.722	35.30	46.00	-10.70
27	0.312	39.19	49.92	-10.73
28	0.352	38.09	48.91	-10.82
29	2.397	35.17	46.00	-10.83
30	1.929	35.16	46.00	-10.84

BAND EDGES

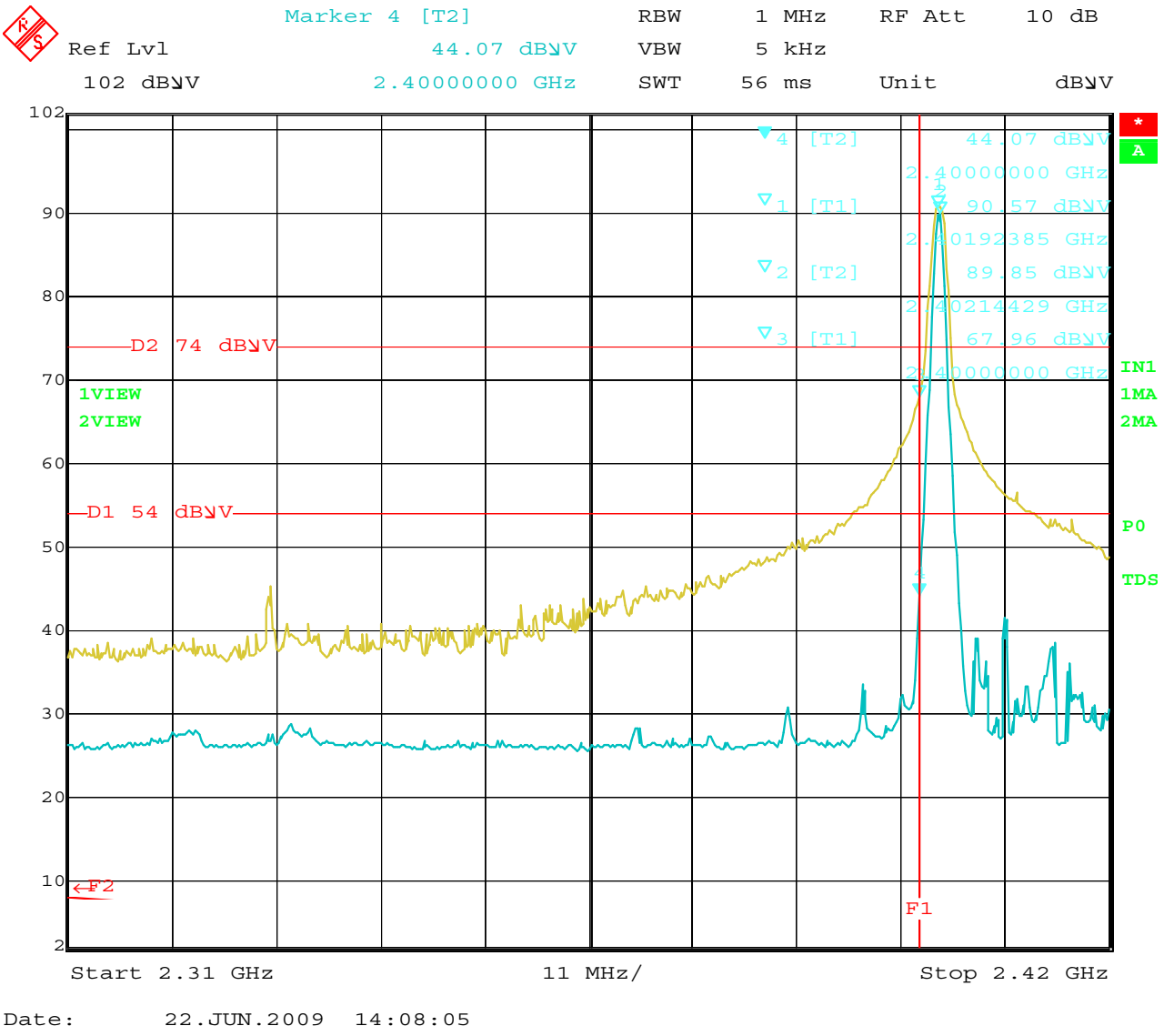
DATA SHEETS

FCC 15.249
RF Digital Corporation
2.4 GHz Transceiver Module
Model: R24

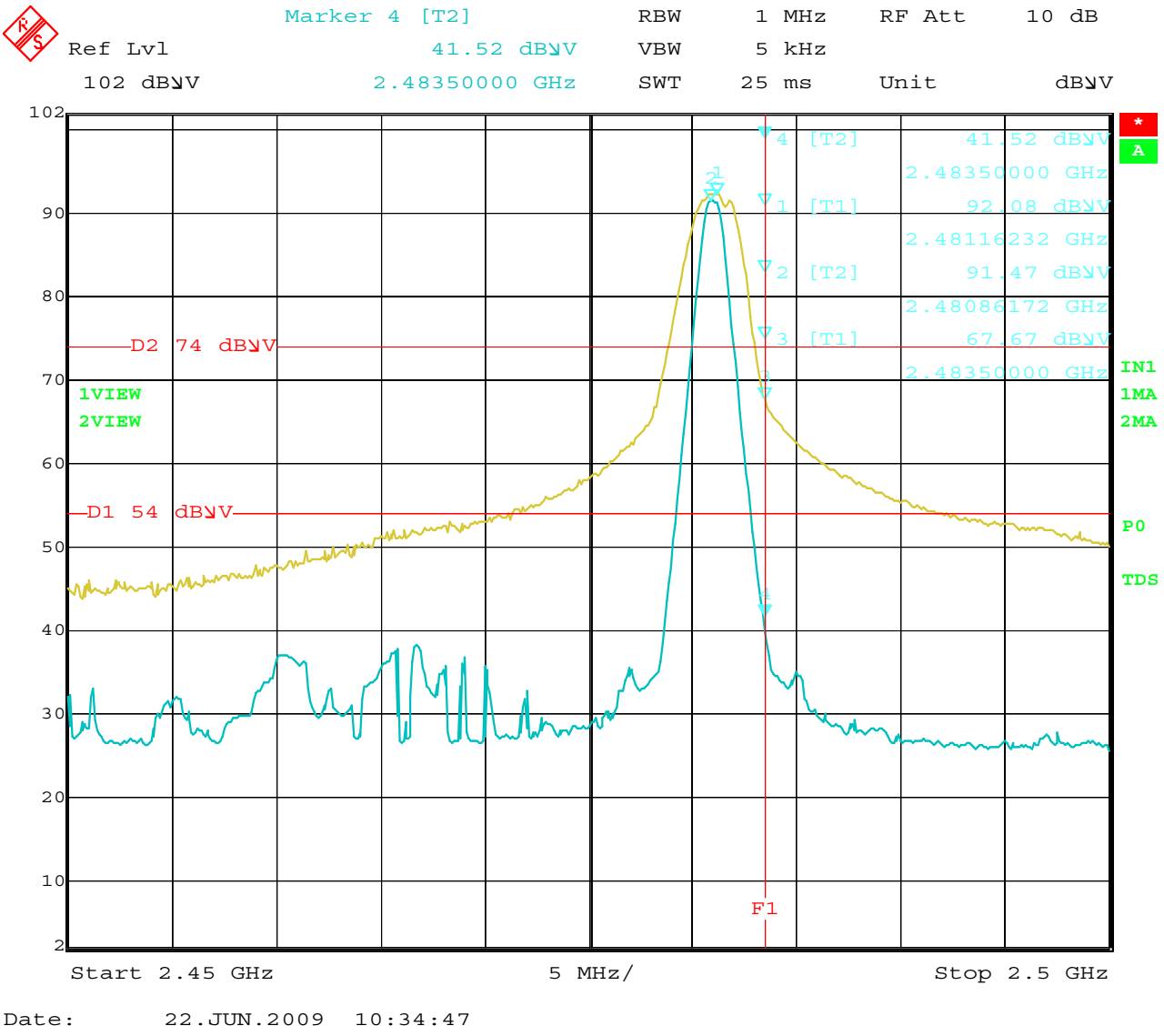
Date: 06/22/09
Lab: B
Tested By: Kyle Fujimoto

Band Edge

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2401.92	90.57	V	--	--	Peak	1.02	135	Fundamental of High Channel
2402.14	89.85	V	--	--	Avg	1.02	135	Y-Axis (Worst Case)
2400	67.96	V	74	-6.04	Peak	1.02	135	**No** Marker Delta Method
2400	44.07	V	54	-9.93	Avg	1.02	135	Method Used
2481.16	92.08	V	--	--	Peak	1.02	135	Fundamental of High Channel
2480.86	91.47	V	--	--	Avg	1.02	135	Y-Axis (Worst Case)
2483.5	67.67	V	74	-6.33	Peak	1.02	135	**No** Marker Delta Method
2483.5	41.52	V	54	-12.48	Avg	1.02	135	Method Used



Band Edge Low Channel – Vertical Polarization – Y-Axis (Worst Case)



Band Edge High Channel – Vertical Polarization – Y-Axis (Worst Case)