FCC PART 15, SUBPART B and C
TEST REPORT

for

TX

Model: TX2000

Prepared for

RODANN ELECTRONICS MFG. CO.
1819 SW TROON AVENUE
BEND, OREGON 97702

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

MICHAEL CHRISTENSEN

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

DATE: APRIL 17, 2008

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
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1	Plot Map And Layout of 3 Meter Radiated Test 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:	TX Model: TX2000 S/N: N/A
Product Description:	See Expository Statement
Modifications:	The EUT was not modified during the testing.
Manufacturer:	Rodann Electronics Mfg. Co. 1819 SW Troon Avenue Bend, Oregon 97702
Test Date:	March 28, 2008
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.209 and 15.231
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	This test was not performed because the EUT operates on battery power only and cannot be plugged into the AC public mains.
2	Radiated RF Emissions, 10 kHz – 4.18GHz	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.231.

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the TX, Model: TX2000. 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 15.231.

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

Rodann Electronics Mfg. Co.

Alex Skarbek President

Compatible Electronics, Inc.

Kyle Fujimoto Test Engineer
Michael Christensen Lab Manager

2.4 Date Test Sample was Received

The test sample was received prior to the initial test date of March 28, 2008.

2.5 Disposition of the Test Sample

The sample has not been returned to Rodann Electronics Mfg. Co. as of April 17, 2008.

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

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.

The TX Model: TX2000 (EUT) was tested as a stand alone unit and tested in three orthogonal axis. The EUT was continuously transmitting. The EUT uses OOK modulation.

The EUT is activated when there is a signal detected by the PIR sensor. This causes the transmitter to transmit for a maximum of 530.8 mS before shutting off. The EUT will also not transmit for at least another 2 seconds, in any circumstance. Also, the EUT only starts transmitting when the PIR sensor senses a change. The PIR sensor is used to detect a change in the infrared background caused by the heat emitted in human bodies, animals, etc.

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

4.1.1 Cable Construction and Termination

The EUT has no external cables.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID
TX (EUT)	RODANN ELECTRONICS MFG. CO.	TX2000	N/A	**U2QTXRX10002000**

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CAL. CYCLE
EMI Receiver	Rohde & Schwarz	ESIB40	100149	November 27, 2006	2 Year
RF RADIATED EMISSIONS TEST EQUIPMENT					
Preamplifier	Com Power	PA-102	1017	January 11, 2008	1 Year
Microwave Preamplifier	Com Power	PA-122	181921	March 3, 2008	1 Year
Biconical Antenna	Com Power	AB-900	15226	February 28, 2008	1 Year
Log Periodic Antenna	Com Power	AL-100	16060	July 9, 2007	1 Year
Horn Antenna	Com Power	AH-118	10073	July 17, 2006	2 Year
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Loop Antenna	Com Power	AL-130	17089	September 24, 2007	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 is battery powered and 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 Radiated Emissions (Spurious and Harmonics) Test

The EMI Receiver was 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 Model: PA-122 was used for frequencies from 1 GHz to 4.18 GHz. The spectrum analyzer and EMI Receiver were used in the peak detect mode with the "Max Hold" feature activated. In this mode, the 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 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 4.18 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.

7.2 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** limits of CFR Title 47, Part 15, Subpart B; and CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.231.

7.3 Bandwidth of the Fundamental

The -20 dB bandwidth was checked to see that it was within 0.25% of the fundamental frequency for the EUT. The data sheet of the –20 dB bandwidth is located in Appendix E.

Test Results:

The EUT complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.231 [c].

8. CONCLUSIONS

The TX, Model: TX2000 (EUT), as tested, 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 15.231.

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 15.231 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

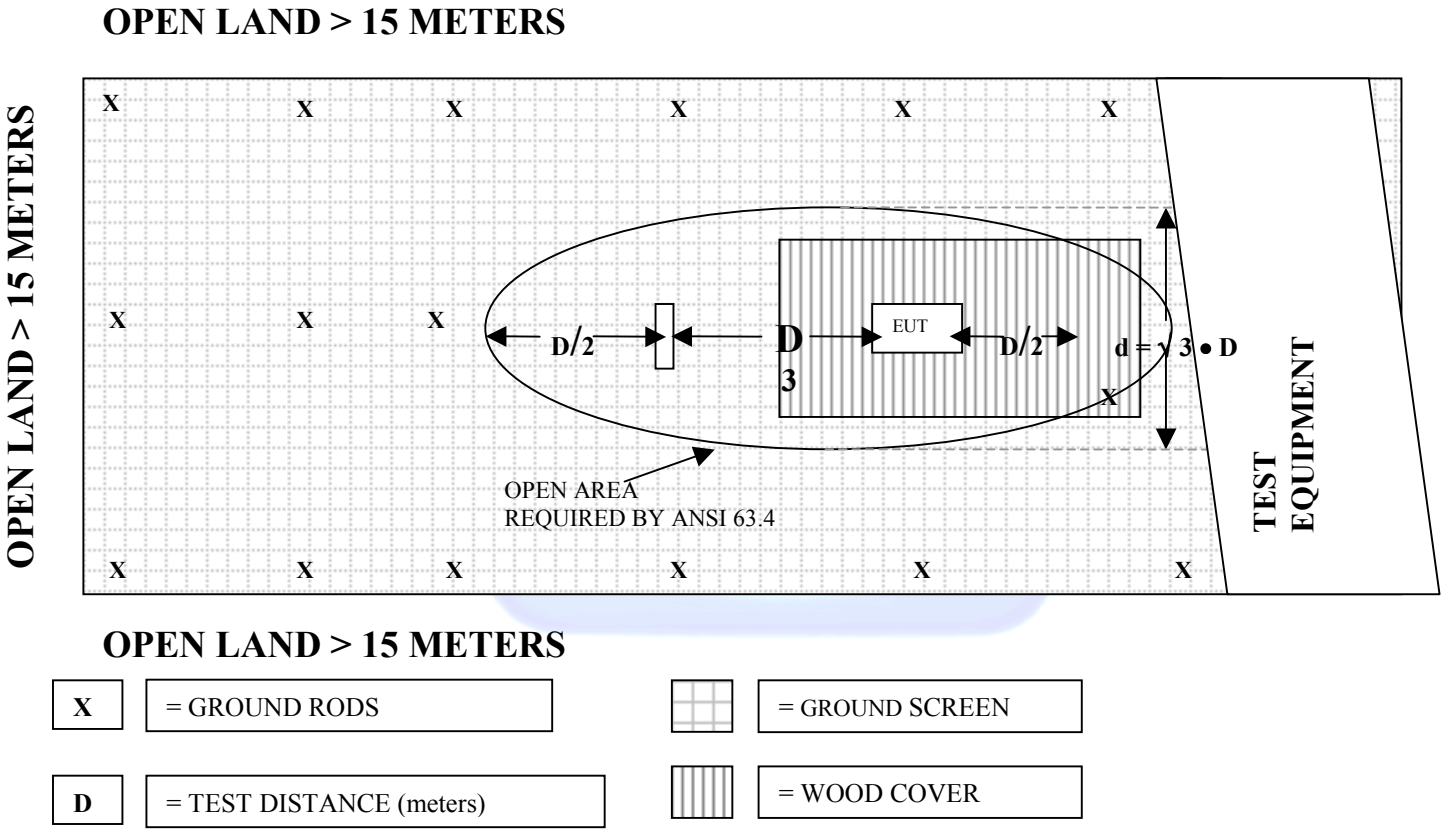
TX
Model: TX2000
S/N: N/A

There are no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

FIGURE 1: PLOT MAP AND LAYOUT OF 3 METER RADIATED TEST SITE



COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15226

CALIBRATION DATE: FEBRUARY 28, 2008

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	12.1	100	10.7
35	12.2	120	13.6
40	11.7	140	12.1
45	9.9	160	12.2
50	11.3	180	15.2
60	9.4	200	16.5
70	7.6	250	16.5
80	6.0	275	18.1
90	6.8	300	21.5

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16060

CALIBRATION DATE: JULY 9, 2007

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	13.5	700	20.5
400	15.8	800	21.6
500	17.0	900	21.3
600	19.2	1000	22.2

COM-POWER PA-102

PREAMPLIFIER

S/N: 1017

CALIBRATION DATE: JANUARY 11, 2008

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	38.2	300	38.0
40	38.0	350	38.3
50	38.3	400	38.0
60	38.6	450	37.5
70	38.4	500	37.9
80	38.4	550	37.9
90	38.3	600	37.8
100	38.1	650	37.5
125	38.5	700	38.0
150	38.2	750	37.7
175	38.1	800	37.1
200	38.4	850	37.1
225	38.2	900	37.1
250	38.2	950	37.0
275	38.2	1000	36.5

COM-POWER PA-122

PREAMPLIFIER

S/N: 181921

CALIBRATION DATE: MARCH 3, 2008

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	36.32	10.0	35.47
1.5	35.40	10.5	35.05
2.0	34.77	11.0	34.16
2.5	35.07	11.5	33.75
3.0	34.86	12.0	34.65
3.5	34.48	12.5	34.41
4.0	34.30	13.0	35.36
4.5	33.96	13.5	35.30
5.0	34.06	14.0	35.87
5.5	34.54	14.5	36.44
6.0	35.90	15.0	36.24
6.5	36.85	15.5	35.92
7.0	36.55	16.0	35.53
7.5	35.31	16.5	35.29
8.0	33.57	17.0	34.96
8.5	33.36	17.5	34.02
9.0	35.01	18.0	33.39
9.5	35.97	18.5	32.70

COM-POWER AH-118

HORN ANTENNA

S/N: 10073

CALIBRATION DATE: JULY 17, 2006

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	25.331	10.0	42.391
1.5	27.507	10.5	39.194
2.0	31.581	11.0	38.504
2.5	30.906	11.5	40.724
3.0	30.276	12.0	41.079
3.5	30.396	12.5	41.014
4.0	30.881	13.0	41.201
4.5	32.77	13.5	42.335
5.0	34.067	14.0	43.248
5.5	33.914	14.5	45.639
6.0	34.028	15.0	43.197
6.5	35.779	15.5	41.751
7.0	38.347	16.0	42.462
7.5	39.096	16.5	41.908
8.0	39.377	17.0	40.277
8.5	38.646	17.5	48.117
9.0	37.438	18.0	54.113
9.5	38.403		

COM-POWER AL-130

LOOP ANTENNA

S/N: 17089

CALIBRATION DATE: SEPTEMBER 24, 2007

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-41.27	10.23
0.01	-41.96	9.54
0.02	-41.73	9.77
0.03	-40.46	11.04
0.04	-40.56	10.94
0.05	-42.00	9.50
0.06	-41.30	10.20
0.1	-41.43	10.07
0.2	-43.90	7.60
0.3	-41.43	10.07
0.4	-41.40	10.10
0.5	-41.40	10.10
0.6	-40.93	10.57
1	-40.83	10.67
2	-40.3	11.20
5	-40.2	11.30
8	-40.6	10.90
9	-40.1	11.40
10	-40.4	11.10
15	-41.67	9.83
20	-41.10	10.40
25	-42.8	8.70
30	-42.8	8.70

FRONT VIEW

RODANN ELECTRONICS MFG. CO.
TX
MODEL: TX2000
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB B

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

RODANN ELECTRONICS MFG. CO.
TX
MODEL: TX2000
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB B

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

RODANN ELECTRONICS MFG. CO.
TX
MODEL: TX2000
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB D

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

RODANN ELECTRONICS MFG. CO.
TX
MODEL: TX2000
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB D

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS

DATA SHEETS

FCC 15.231
Rodann Electronics Mfg. Co.
TX
Model: TX2000

Date: 03/28/08
Labs: B and D
Tested By: Kyle Fujimoto

Duty Cycle: 20.46%
X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
418	93.8	V	100.2	-6.4	Peak	1	180	
418	80.0181	V	80.2	-0.1819	Avg	1	180	
836	53.31	V	80.2	-26.89	Peak	1	90	
836	39.5281	V	60.2	-20.672	Avg	1	90	
1254	35.44	V	74	-38.56	Peak	1.82	225	
1254	21.6581	V	54	-32.342	Avg	1.82	225	
1672	39.17	V	74	-34.83	Peak	1.82	225	
1672	25.3881	V	54	-28.612	Avg	1.82	225	
2090	45.82	V	80.2	-34.38	Peak	2.26	135	
2090	32.0381	V	60.2	-28.162	Avg	2.26	135	
2508	44.01	V	80.2	-36.19	Peak	1.73	125	
2508	30.2281	V	60.2	-29.972	Avg	1.73	125	
2926	44.44	V	80.2	-35.76	Peak	1.63	150	
2926	30.6581	V	60.2	-29.542	Avg	1.63	150	
3344	47.16	V	80.2	-33.04	Peak	1.63	150	
3344	33.3781	V	60.2	-26.822	Avg	1.63	150	
3762	39.61	V	74	-34.39	Peak	1.64	150	
3762	25.8281	V	54	-28.172	Avg	1.64	150	
4180	38.55	V	74	-35.45	Peak	1.64	135	
4180	24.7681	V	54	-29.232	Avg	1.64	135	

FCC 15.231
Rodann Electronics Mfg. Co.
TX
Model: TX2000

Date: 03/28/08
Labs: B and D
Tested By: Kyle Fujimoto

Duty Cycle: 20.46%
X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
418	93.6	H	100.2	-6.6	Peak	1	90	
418	79.8181	H	80.2	-0.3819	Avg	1	90	
836	61	H	80.2	-19.2	Peak	1.5	90	
836	47.2181	H	60.2	-12.982	Avg	1.5	90	
1254	37.57	H	74	-36.43	Peak	1.33	150	
1254	23.7881	H	54	-30.212	Avg	1.33	150	
1672	37.88	H	74	-36.12	Peak	1.21	150	
1672	24.0981	H	54	-29.902	Avg	1.21	150	
2090	51.08	H	80.2	-29.12	Peak	1.97	180	
2090	37.2981	H	60.2	-22.902	Avg	1.97	180	
2508	47.63	H	80.2	-32.57	Peak	1.31	225	
2508	33.8481	H	60.2	-26.352	Avg	1.31	225	
2926	47.05	H	80.2	-33.15	Peak	1.52	150	
2926	33.2681	H	60.2	-26.932	Avg	1.52	150	
3344	43.01	H	80.2	-37.19	Peak	1.24	150	
3344	29.2281	H	60.2	-30.972	Avg	1.24	150	
3762	43.21	H	74	-30.79	Peak	1.11	125	
3762	29.4281	H	54	-24.572	Avg	1.11	125	
4180	40.56	H	74	-33.44	Peak	1.27	150	
4180	26.7781	H	54	-27.222	Avg	1.27	150	

FCC 15.231

Rodann Electronics Mfg. Co.
TX
Model: TX2000

Date: 03/28/08
Labs: B and D
Tested By: Kyle Fujimoto

Duty Cycle: 20.46%
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
418	93.7	V	100.2	-6.5	Peak	1	180	
418	79.9181	V	80.2	-0.2819	Avg	1	180	
836	54.31	V	80.2	-25.89	Peak	1	90	
836	40.5281	V	60.2	-19.672	Avg	1	90	
1254	43.44	V	74	-30.56	Peak	1.42	150	
1254	29.6581	V	54	-24.342	Avg	1.42	150	
1672	41.75	V	74	-32.25	Peak	1.43	225	
1672	27.9681	V	54	-26.032	Avg	1.43	225	
2090	47.68	V	80.2	-32.52	Peak	1.42	135	
2090	33.8981	V	60.2	-26.302	Avg	1.42	135	
2508	51.03	V	80.2	-29.17	Peak	1.42	225	
2508	37.2481	V	60.2	-22.952	Avg	1.42	225	
2926	48.39	V	80.2	-31.81	Peak	1.14	125	
2926	34.6081	V	60.2	-25.592	Avg	1.14	125	
3344	43.21	V	80.2	-36.99	Peak	1.15	150	
3344	29.4281	V	60.2	-30.772	Avg	1.15	150	
3762	42.09	V	74	-31.91	Peak	1.14	135	
3762	28.3081	V	54	-25.692	Avg	1.14	135	
4180	43.27	V	74	-30.73	Peak	1.06	125	
4180	29.4881	V	54	-24.512	Avg	1.06	125	

FCC 15.231
Rodann Electronics Mfg. Co.
TX
Model: TX2000

Date: 03/28/08
Labs: B and D
Tested By: Kyle Fujimoto

Duty Cycle: 20.46%
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
418	90.3	H	100.2	-9.9	Peak	1	180	
418	76.5181	H	80.2	-3.6819	Avg	1	180	
836	56.11	H	80.2	-24.09	Peak	1	90	
836	42.3281	H	60.2	-17.872	Avg	1	90	
1254	40.98	H	74	-33.02	Peak	1.13	150	
1254	27.1981	H	54	-26.802	Avg	1.13	150	
1672	38.15	H	74	-35.85	Peak	1.28	135	
1672	24.3681	H	54	-29.632	Avg	1.28	135	
2090	39.47	H	80.2	-40.73	Peak	1.29	135	
2090	25.6881	H	60.2	-34.512	Avg	1.29	135	
2508	50.31	H	80.2	-29.89	Peak	1.64	180	
2508	36.5281	H	60.2	-23.672	Avg	1.64	180	
2926	48.25	H	80.2	-31.95	Peak	1.52	135	
2926	34.4681	H	60.2	-25.732	Avg	1.52	135	
3344	43.21	H	80.2	-36.99	Peak	1.55	150	
3344	29.4281	H	60.2	-30.772	Avg	1.55	150	
3762	41.71	H	74	-32.29	Peak	1.52	180	
3762	27.9281	H	54	-26.072	Avg	1.52	180	
4180	42.57	H	74	-31.43	Peak	1.52	150	
4180	28.7881	H	54	-25.212	Avg	1.52	150	

FCC 15.231
Rodann Electronics Mfg. Co.
TX
Model: TX2000

Date: 03/28/08
Labs: B and D
Tested By: Kyle Fujimoto

Duty Cycle: 20.46%
Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
418	93.6	V	100.2	-6.6	Peak	1	180	
418	79.8181	V	80.2	-0.3819	Avg	1	180	
836	55.1	V	80.2	-25.1	Peak	1.25	0	
836	41.3181	V	60.2	-18.882	Avg	1.25	0	
1254	42.08	V	74	-31.92	Peak	1.74	125	
1254	28.2981	V	54	-25.702	Avg	1.74	125	
1672	40.89	V	74	-33.11	Peak	1.34	135	
1672	27.1081	V	54	-26.892	Avg	1.34	135	
2090	47.81	V	80.2	-32.39	Peak	1.34	225	
2090	34.0281	V	60.2	-26.172	Avg	1.34	225	
2508	47.63	V	80.2	-32.57	Peak	1.29	125	
2508	33.8481	V	60.2	-26.352	Avg	1.29	125	
2926	48.27	V	80.2	-31.93	Peak	1.78	135	
2926	34.4881	V	60.2	-25.712	Avg	1.78	135	
3344	45.66	V	80.2	-34.54	Peak	1.81	125	
3344	31.8781	V	60.2	-28.322	Avg	1.81	125	
3762	42.38	V	74	-31.62	Peak	1.81	125	
3762	28.5981	V	54	-25.402	Avg	1.81	125	
4180	45.27	V	74	-28.73	Peak	1.83	125	
4180	31.4881	V	54	-22.512	Avg	1.83	125	

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Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
418	90.9	H	100.2	-9.3	Peak	1	90	
418	77.1181	H	80.2	-3.0819	Avg	1	90	
836	56.21	H	80.2	-23.99	Peak	1	90	
836	42.4281	H	60.2	-17.772	Avg	1	90	
1254	35.11	H	74	-38.89	Peak	1.73	125	
1254	21.3281	H	54	-32.672	Avg	1.73	125	
1672	37.93	H	74	-36.07	Peak	2.12	125	
1672	24.1481	H	54	-29.852	Avg	2.12	125	
2090	49.93	H	80.2	-30.27	Peak	2.22	135	
2090	36.1481	H	60.2	-24.052	Avg	2.22	135	
2508	43.21	H	80.2	-36.99	Peak	1.47	150	
2508	29.4281	H	60.2	-30.772	Avg	1.47	150	
2926	44.26	H	80.2	-35.94	Peak	2.24	150	
2926	30.4781	H	60.2	-29.722	Avg	2.24	150	
3344	45.02	H	80.2	-35.18	Peak	2.24	150	
3344	31.2381	H	60.2	-28.962	Avg	2.24	150	
3762	38.24	H	74	-35.76	Peak	2.24	135	
3762	24.4581	H	54	-29.542	Avg	2.24	135	
4180	39.38	H	74	-34.62	Peak	1.06	125	
4180	25.5981	H	54	-28.402	Avg	1.06	125	

FCC 15.231 and FCC Class B

Rodann Electronics Mfg. Co.
TX
Model: TX2000

Date: 03/28/08
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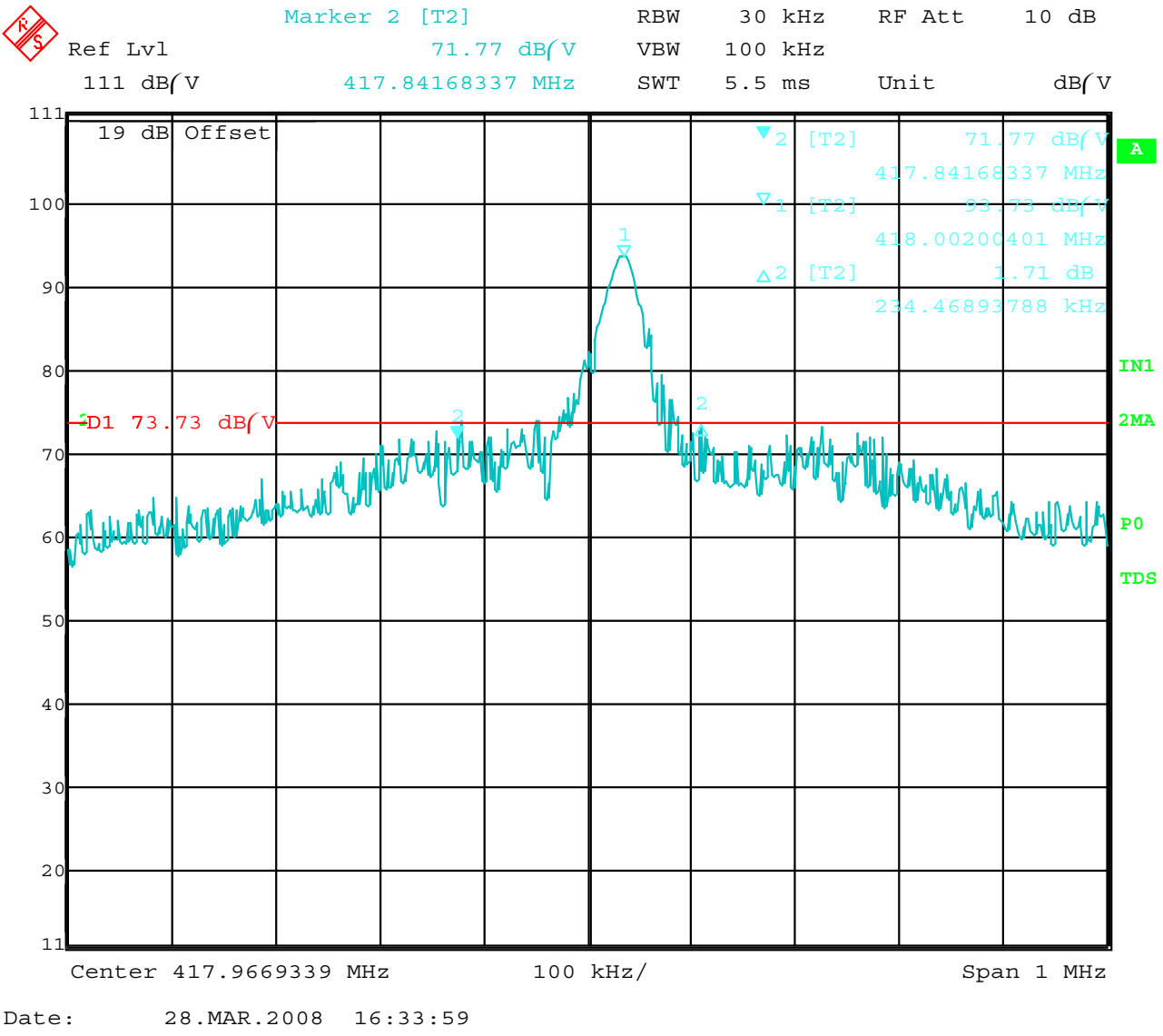
Tested By: Kyle Fujimoto

Digital Portion - 10 kHz to 4180 MHz - Vertical and Horizontal Polarization
Non Harmonic Emissions from the Tx - 10 kHz to 4180 MHz - Vertical and Horizontal Polarization

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissons
								Found for the Digital Portion
								from 10 kHz to 4180 MHz
								for the EUT
								No Emissons
								Found for the Non-Harmonic
								Emissions from 10 kHz
								to 4180 MHz for the EUT

-20 dB BANDWIDTH

DATA SHEET



20 dB Bandwidth of the Fundamental