

*FCC PART 15, SUBPART B and C  
TEST REPORT**for***KEY-FOB TRANSMITTER****MODEL: KF-MMC001**

Prepared for

BTX HOLDINGS, INC.  
10763 SANDEN DRIVE  
DALLAS, TEXAS 75238Prepared by: *Kyle Fujimoto*

KYLE FUJIMOTO

Approved by: *James Ross*

JAMES ROSS

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

DATE: AUGUST 24, 2006

	REPORT BODY	APPENDICES					TOTAL
		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	
PAGES	16	2	2	2	13	11	46

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1	Plot Map And Layout of 3 Meter Radiated Site
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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: Key-Fob Transmitter  
Model: KF-MMC001  
S/N: N/A

Product Description: See Expository Statement

Modifications: The EUT was not modified in order to meet the specifications.

Manufacturer: BTX Holdings, Inc.  
10763 Sanden Drive  
Dallas, Texas 75238

Test Date: August 16, 2006

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

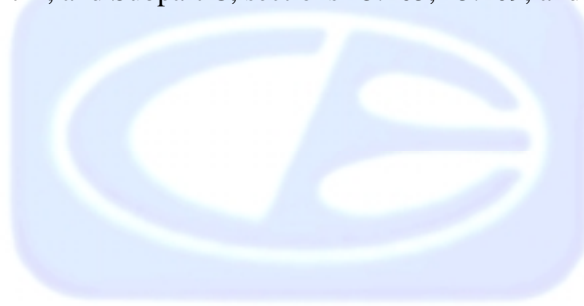
Test Deviations: The test procedure was not deviated from during the testing.

## SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz - 30 MHz	This test was not performed because the EUT is battery powered only and does not connect to the AC public mains.
2	Radiated RF Emissions, 10 kHz - 4400 MHz	Complies with the <b>Class B</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 Key-Fob Transmitter, Model: KF-MMC001. 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

BTX Holdings, Inc.

T. Kevin Keenan                      COO

Compatible Electronics, Inc.

Kyle Fujimoto                      Test Engineer

James Ross                         Test Engineer

### 2.4 Date Test Sample was Received

The test sample was received on July 17, 2006

### 2.5 Disposition of the Test Sample

The sample has not yet been returned to BTX Holdings, Inc. as of August 24, 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	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
COO	Chief Operating Officer

### 3. APPLICABLE DOCUMENTS

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

<b>SPEC</b>	<b>TITLE</b>
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
ANSI C63.4 2003	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

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#### **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 Key-Fob Transmitter Model: KF-MMC001 (EUT) was tested as a stand-alone unit and continuously transmitting. The EUT's antenna is a PCB trace. The EUT was tested in three orthogonal axis.

After the EUT is activated by pressing the button, the transmission will cease operation once the button is released.

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



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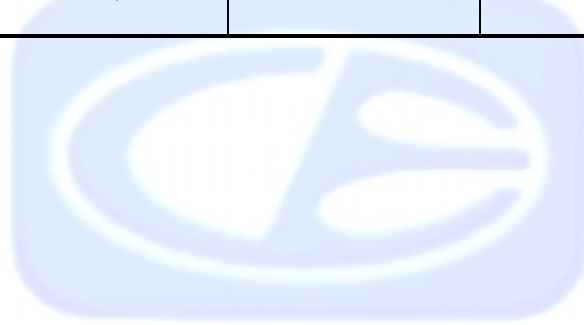
**4.1.1 Cable Construction and Termination**

There are no external cables connected to the EUT.



**5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT****5.1 EUT and Accessory List**

<b>EQUIPMENT</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>FCC ID</b>
KEY-FOB TRANSMITTER (EUT)	BTX HOLDINGS, INC.	KF-MMC001	N/A	UGPMMCKFB002



## 5.2 EMI Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
<b>GENERAL TEST EQUIPMENT USED FOR ALL RF EMISSIONS TESTS</b>					
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	May 26, 2006	May 26, 2007
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22279	May 26 2006	May 26, 2007
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	May 26, 2006	May 26, 2007
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
EMI Receiver	Rohde & Schwarz	ESIB40	100172	October 28, 2004	October 28, 2006
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
<b>RF RADIATED EMISSIONS TEST EQUIPMENT</b>					
Radiated Emissions Data Capture Program	Compatible Electronics	2.0	N/A	N/A	N/A
Preamplifier	Com Power	PA-102	1017	January 19, 2006	Jan. 19, 2007
Biconical Antenna	Com Power	AB-900	15227	March 9, 2006	March 9, 2007
Log Periodic Antenna	Com Power	AL-100	16060	July 17, 2006	July 17, 2007
Loop Antenna	Com Power	AL-130	17089	September 21, 2005	Sept. 21, 2006
Horn Antenna	Antenna Research	DRG-118/A	1053	March 6, 2006	March 6, 2007
Microwave Preamplifier	Com Power	PA-122	181917	January 20, 2006	Jan. 20, 2007
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A

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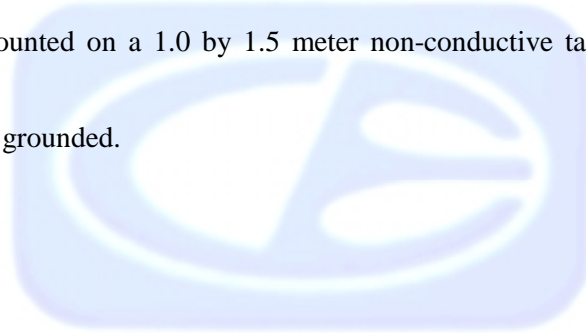
**6. TEST SITE DESCRIPTION****6.1 Test Facility Description**

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 Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer 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 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 4.4 GHz. The spectrum analyzer was 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 readings were averaged by a "duty cycle correction factor", derived from 20 log (dwell time / one pulse train with blanking interval).

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

<b>FREQUENCY RANGE</b>	<b>EFFECTIVE MEASUREMENT BANDWIDTH</b>	<b>TRANSDUCER</b>
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 4.4 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:**

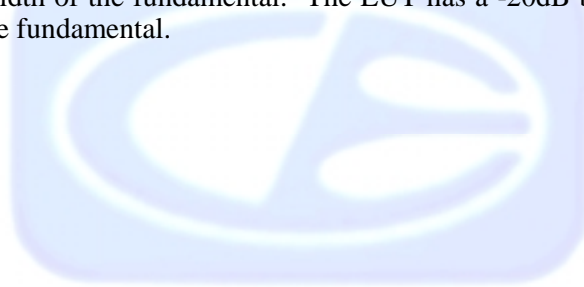
The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.231.

### 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. Plots of the -20 dB bandwidth are located in Appendix E.

#### **Test Results:**

The EUT complies with the requirements of CFR Title 47, Part 15, Subpart C, section 15.231 (c) for the -20 dB bandwidth of the fundamental. The EUT has a -20dB bandwidth that is less than 0.25% of frequency of the fundamental.



**8. CONCLUSIONS**

The Key-Fob Transmitter Model: KF-MMC001 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***

---

**Brea Division**  
114 Olinda Drive  
Brea, CA 92823  
(714) 579-0500

**Agoura Division**  
2337 Troutdale Drive  
Agoura, CA 91301  
(818) 597-0600

**Silverado Division**  
19121 El Toro Road  
Silverado, CA 92676  
(949) 589-0700

**Lake Forest Division**  
20621 Pascal Way  
Lake Forest, CA 92630  
(949) 587-0400

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## ***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***

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## **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.





**APPENDIX C**

***ADDITIONAL MODELS COVERED  
UNDER THIS REPORT***

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**Brea Division**  
114 Olinda Drive  
Brea, CA 92823  
(714) 579-0500

**Agoura Division**  
2337 Troutdale Drive  
Agoura, CA 91301  
(818) 597-0600

**Silverado Division**  
19121 El Toro Road  
Silverado, CA 92676  
(949) 589-0700

**Lake Forest Division**  
20621 Pascal Way  
Lake Forest, CA 92630  
(949) 587-0400

## **ADDITIONAL MODELS COVERED UNDER THIS REPORT**

USED FOR THE PRIMARY TEST

Key-Fob Transmitter  
Model: KF-MMC001  
S/N: N/A

There were no additional models covered under this report.



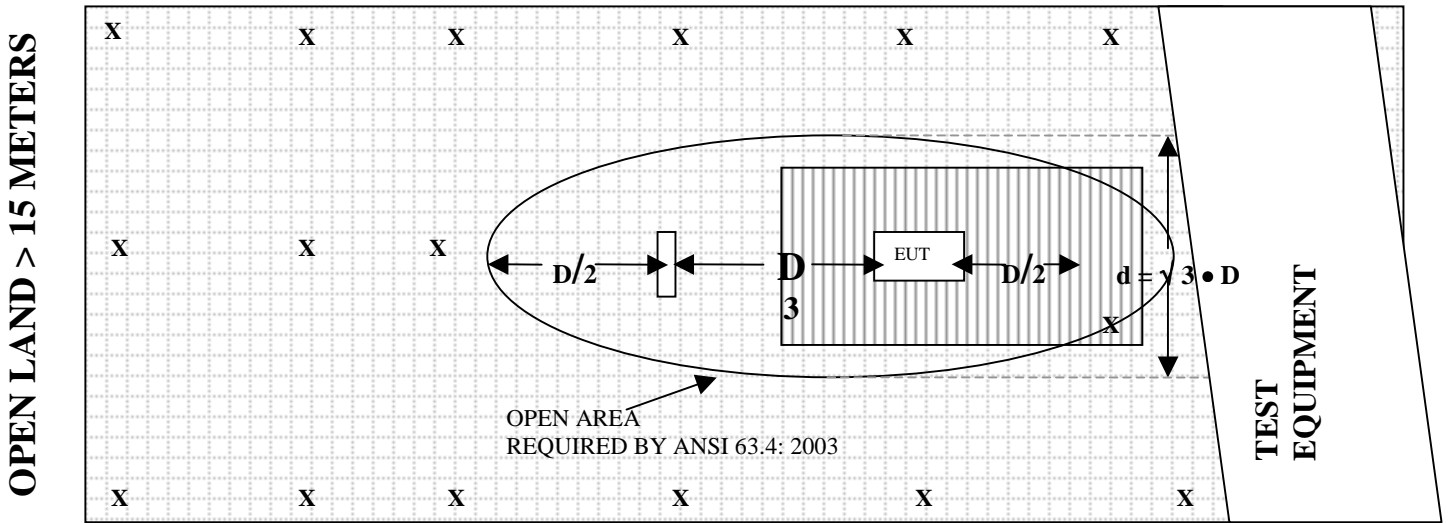


**APPENDIX D**

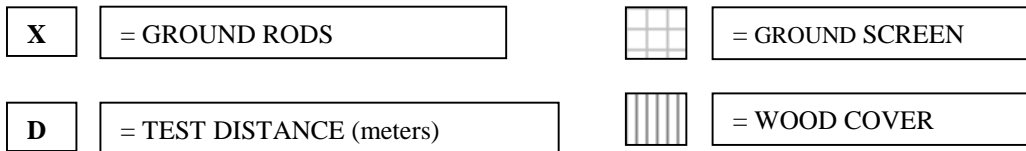
***DIAGRAMS, CHARTS, AND PHOTOS***

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

**OPEN LAND > 15 METERS**



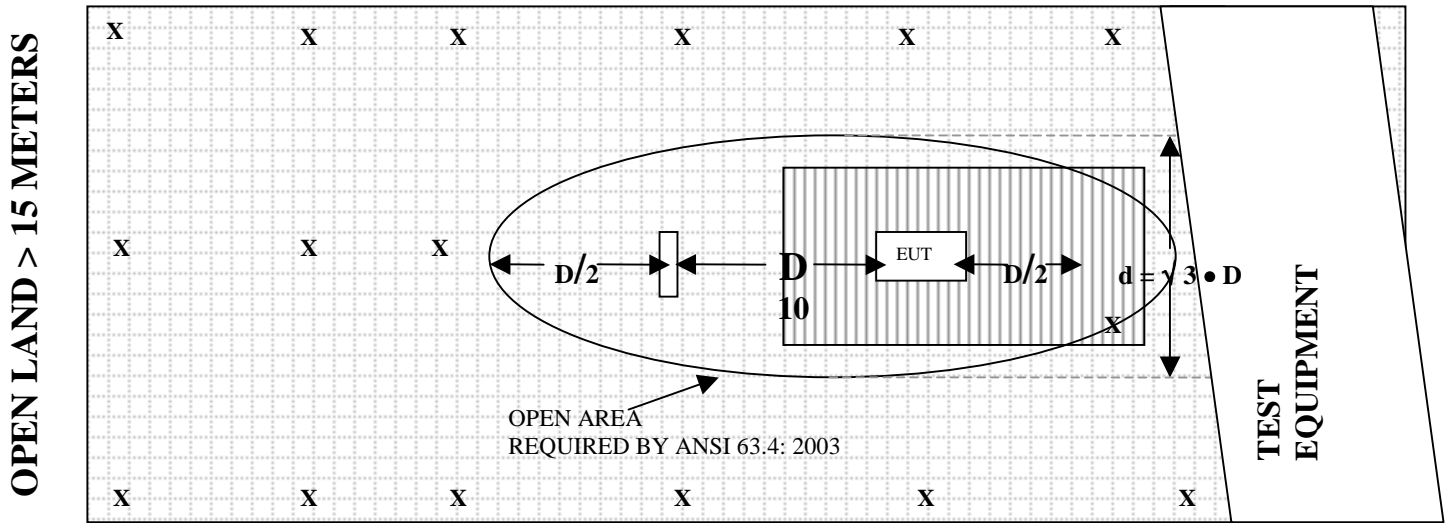
**OPEN LAND > 15 METERS**





**FIGURE 2: PLOT MAP AND LAYOUT OF 10 METER RADIATED SITE**

**OPEN LAND > 15 METERS**



**OPEN LAND > 15 METERS**

- |          |                          |  |                 |
|----------|--------------------------|--|-----------------|
| <b>X</b> | = GROUND RODS            |  | = GROUND SCREEN |
| <b>D</b> | = TEST DISTANCE (meters) |  | = WOOD COVER    |

COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15227

CALIBRATION DATE: MARCH 9, 2006

<b>FREQUENCY (MHz)</b>	<b>FACTOR (dB)</b>	<b>FREQUENCY (MHz)</b>	<b>FACTOR (dB)</b>
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: JULY 17, 2006

<b>FREQUENCY (MHz)</b>	<b>FACTOR (dB)</b>	<b>FREQUENCY (MHz)</b>	<b>FACTOR (dB)</b>
300	13.58	700	20.49
400	14.53	800	20.13
500	15.36	900	22.15
600	18.29	1000	22.76

**COM-POWER PA-102****PREAMPLIFIER**

S/N: 1017

CALIBRATION DATE: JANUARY 19, 2006

<b>FREQUENCY (MHz)</b>	<b>FACTOR (dB)</b>	<b>FREQUENCY (MHz)</b>	<b>FACTOR (dB)</b>
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	37.7
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 PA-122****PREAMPLIFIER**

S/N: 181917

CALIBRATION DATE: JANUARY 20, 2006

<b>FREQUENCY (GHz)</b>	<b>FACTOR (dB)</b>	<b>FREQUENCY (GHz)</b>	<b>FACTOR (dB)</b>
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		

**ANTENNA RESEARCH DRG-118/A****HORN ANTENNA**

S/N: 1053

CALIBRATION DATE: MARCH 6, 2006

<b>FREQUENCY (GHz)</b>	<b>FACTOR (dB)</b>	<b>FREQUENCY (GHz)</b>	<b>FACTOR (dB)</b>
1.0	24.46	10.0	39.55
1.5	25.05	10.5	39.86
2.0	28.42	11.0	38.49
2.5	29.91	11.5	40.71
3.0	31.46	12.0	40.59
3.5	31.91	12.5	40.17
4.0	31.55	13.0	39.70
4.5	31.94	13.5	40.84
5.0	32.90	14.0	41.58
5.5	34.07	14.5	45.14
6.0	35.69	15.0	42.20
6.5	33.11	15.5	39.42
7.0	36.51	16.0	38.80
7.5	37.27	16.5	41.08
8.0	37.21	17.0	44.11
8.5	37.16	17.5	46.29
9.0	38.27	18.0	41.61
9.5	39.73		

**COM-POWER AL-130****LOOP ANTENNA**

S/N: 17089

CALIBRATION DATE: SEPTEMBER 21, 2005

<b>FREQUENCY (MHz)</b>	<b>MAGNETIC (dB/m)</b>	<b>ELECTRIC (dB/m)</b>
0.009	-42.84	8.66
0.01	-41.93	9.57
0.02	-41.29	10.21
0.05	-42.37	9.13
0.07	-41.8	9.7
0.1	-41.83	9.67
0.2	-44.13	7.37
0.3	-41.73	9.77
0.5	-41.8	9.7
0.7	-41.53	9.97
1	-41.46	10.04
2	-41.14	10.36
3	-41.26	10.24
4	-41.46	10.04
5	-41.10	10.40
10	-40.83	10.67
15	-41.47	10.03
20	-35.44	16.06
25	-42.37	9.13
30	-42.94	8.56



**FRONT VIEW**

BTX HOLDINGS, INC.  
KEY-FOB TRANSMITTER  
MODEL: KF-MMC001  
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – LAB B

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**





**REAR VIEW**

BTX HOLDINGS, INC.  
KEY-FOB TRANSMITTER  
MODEL: KF-MMC001  
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – LAB B

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**



**FRONT VIEW**

BTX HOLDINGS, INC.  
KEY-FOB TRANSMITTER  
MODEL: KF-MMC001

FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – LAB D

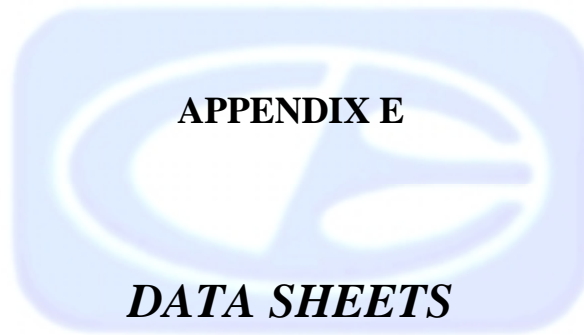
**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**



**REAR VIEW**

BTX HOLDINGS, INC.  
KEY-FOB TRANSMITTER  
MODEL: KF-MMC001  
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – LAB D

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**





***RADIATED EMISSIONS***

***DATA SHEETS***

**FCC 15.231**

BTX Holdings, Inc.  
 MMC Key-Fob Transmitter  
 Model: KF-MMC001

Date: 08/16/06  
 Lab: B  
 Tested By: Kyle Fujimoto

Duty Cycle: 41.67% - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	64.71	V	100.8	-36.09	Peak	2	90	
433.92	57.11	V	80.8	-23.69	Avg	2	90	
867.84	53.46	V	80.8	-27.34	Peak	1.5	90	
867.84	45.86	V	60.8	-14.94	Avg	1.5	90	
1301.76	51.19	V	74	-22.81	Peak	3.35	225	
1301.76	43.59	V	54	-10.41	Avg	3.35	225	
1735.7	54.75	V	80.8	-26.05	Peak	3.03	225	
1735.7	47.15	V	60.8	-13.65	Avg	3.03	225	
2169.6	52.09	V	80.8	-28.71	Peak	3.42	225	
2169.6	44.49	V	60.8	-16.31	Avg	3.42	225	
2603.52	52.19	V	80.8	-28.61	Peak	2.47	225	
2603.52	44.59	V	60.8	-16.21	Avg	2.47	225	
3037.44	46.95	V	80.8	-33.85	Peak	2.82	180	
3037.44	39.35	V	60.8	-21.45	Avg	2.82	180	
3471.36	45.35	V	80.8	-35.45	Peak	2.38	315	
3471.36	37.75	V	60.8	-23.05	Avg	2.38	315	
3905.28	55.77	V	74	-18.23	Peak	2.12	180	
3905.28	48.17	V	54	-5.83	Avg	2.12	180	
4339.2	60.44	V	74	-13.56	Peak	2.68	135	
4339.2	52.84	V	54	-1.16	Avg	2.68	135	

41.67%

**FCC 15.231**

BTX Holdings, Inc.  
 MMC Key-Fob Transmitter  
 Model: KF-MMC001

Date: 08/16/06  
 Lab: B  
 Tested By: Kyle Fujimoto

Duty Cycle: 41.67% - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	79.58	H	100.8	-21.22	Peak	1	125	
433.92	71.98	H	80.8	-8.82	Avg	1	125	
867.84	61.17	H	80.8	-19.63	Peak	1.25	1	
867.84	53.57	H	60.8	-7.23	Avg	1.25	1	
1301.76	43.17	H	74	-30.83	Peak	1.27	90	
1301.76	35.57	H	54	-18.43	Avg	1.27	90	
1735.7	50.34	H	80.8	-30.46	Peak	2.26	135	
1735.7	42.74	H	60.8	-18.06	Avg	2.26	135	
2169.6	41.55	H	80.8	-39.25	Peak	1.19	135	
2169.6	33.95	H	60.8	-26.85	Avg	1.19	135	
2603.52	46.2	H	80.8	-34.6	Peak	2.68	135	
2603.52	38.6	H	60.8	-22.2	Avg	2.68	135	
3037.44	41.86	H	80.8	-38.94	Peak	1.46	225	
3037.44	34.26	H	60.8	-26.54	Avg	1.46	225	
3471.36	42.68	H	80.8	-38.12	Peak	1.46	225	
3471.36	35.08	H	60.8	-25.72	Avg	1.46	225	
3905.28	43.8	H	74	-30.2	Peak	1.46	225	
3905.28	36.2	H	54	-17.8	Avg	1.46	225	
4339.2	45.05	H	74	-28.95	Peak	2.09	135	
4339.2	37.45	H	54	-16.55	Avg	2.09	135	

**FCC 15.231**

BTX Holdings, Inc.  
 MMC Key-Fob Transmitter  
 Model: KF-MMC001

Date: 08/16/06  
 Lab: B  
 Tested By: Kyle Fujimoto

Duty Cycle: 41.67% - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	74.33	V	100.8	-26.47	Peak	1.25	90	
433.92	66.73	V	80.8	-14.07	Avg	1.25	90	
867.84	59.39	V	80.8	-21.41	Peak	1.25	90	
867.84	51.79	V	60.8	-9.01	Avg	1.25	90	
1301.76	51.12	V	74	-22.88	Peak	225	135	
1301.76	43.52	V	54	-10.48	Avg	225	135	
1735.7	51.72	V	80.8	-29.08	Peak	2.24	135	
1735.7	44.12	V	60.8	-16.68	Avg	2.24	135	
2169.6	47.15	V	80.8	-33.65	Peak	2.39	135	
2169.6	39.55	V	60.8	-21.25	Avg	2.39	135	
2603.52	45.62	V	80.8	-35.18	Peak	1	135	
2603.52	38.02	V	60.8	-22.78	Avg	1	135	
3037.44	45.64	V	80.8	-35.16	Peak	1	180	
3037.44	38.04	V	60.8	-22.76	Avg	1	180	
3471.36	48.12	V	80.8	-32.68	Peak	1	180	
3471.36	40.52	V	60.8	-20.28	Avg	1	180	
3905.28	52.12	V	74	-21.88	Peak	1	135	
3905.28	44.52	V	54	-9.48	Avg	1	135	
4339.2	56.41	V	74	-17.59	Peak	1.56	135	
4339.2	48.81	V	54	-5.19	Avg	1.56	135	



**FCC 15.231**

BTX Holdings, Inc.  
 MMC Key-Fob Transmitter  
 Model: KF-MMC001

Date: 08/16/06  
 Lab: B  
 Tested By: Kyle Fujimoto

Duty Cycle: 41.67% - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	62.35	H	100.8	-38.45	Peak	1	90	
433.92	54.75	H	80.8	-26.05	Avg	1	90	
867.84	54.36	H	80.8	-26.44	Peak	1.5	225	
867.84	46.76	H	60.8	-14.04	Avg	1.5	225	
1301.76	38.42	H	74	-35.58	Peak	1.33	135	
1301.76	30.82	H	54	-23.18	Avg	1.33	135	
1735.7	47.57	H	80.8	-33.23	Peak	1.14	135	
1735.7	39.97	H	60.8	-20.83	Avg	1.14	135	
2169.6	44.4	H	80.8	-36.4	Peak	1	180	
2169.6	36.8	H	60.8	-24	Avg	1	180	
2603.52	50.72	H	80.8	-30.08	Peak	1	180	
2603.52	43.12	H	60.8	-17.68	Avg	1	180	
3037.44	45.41	H	80.8	-35.39	Peak	2.08	225	
3037.44	37.81	H	60.8	-22.99	Avg	2.08	225	
3471.36	43.5	H	80.8	-37.3	Peak	1.29	135	
3471.36	35.9	H	60.8	-24.9	Avg	1.29	135	
3905.28	52.89	H	74	-21.11	Peak	1.91	135	
3905.28	45.29	H	54	-8.71	Avg	1.91	135	
4339.2	53.66	H	74	-20.34	Peak	1.74	225	
4339.2	46.06	H	54	-7.94	Avg	1.74	225	

**FCC 15.231**

BTX Holdings, Inc.  
 MMC Key-Fob Transmitter  
 Model: KF-MMC001

Date: 08/16/06  
 Lab: B  
 Tested By: Kyle Fujimoto

Duty Cycle: 41.67% - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	68.36	V	100.8	-32.44	Peak	1	90	
433.92	60.76	V	80.8	-20.04	Avg	1	90	
867.84	59.86	V	80.8	-20.94	Peak	1	135	
867.84	52.26	V	60.8	-8.54	Avg	1	135	
1301.76	49.63	V	74	-24.37	Peak	2.75	135	
1301.76	42.03	V	54	-11.97	Avg	2.75	135	
1735.7	53.14	V	80.8	-27.66	Peak	2.93	135	
1735.7	45.54	V	60.8	-15.26	Avg	2.93	135	
2169.6	50.81	V	80.8	-29.99	Peak	3.34	135	
2169.6	43.21	V	60.8	-17.59	Avg	3.34	135	
2603.52	52.51	V	80.8	-28.29	Peak	3.38	135	
2603.52	44.91	V	60.8	-15.89	Avg	3.38	135	
3037.44	51.97	V	80.8	-28.83	Peak	3.19	225	
3037.44	44.37	V	60.8	-16.43	Avg	3.19	225	
3471.36	47.77	V	80.8	-33.03	Peak	2.54	225	
3471.36	40.17	V	60.8	-20.63	Avg	2.54	225	
3905.28	55.51	V	74	-18.49	Peak	3.37	135	
3905.28	47.91	V	54	-6.09	Avg	3.37	135	
4339.2	61.35	V	74	-12.65	Peak	2.58	225	
4339.2	53.75	V	54	-0.25	Avg	2.28	225	

**FCC 15.231**

BTX Holdings, Inc.  
 MMC Key-Fob Transmitter  
 Model: KF-MMC001

Date: 08/16/06  
 Lab: B  
 Tested By: Kyle Fujimoto

Duty Cycle: 41.67% - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
433.92	78.3	H	100.8	-22.5	Peak	1	1.5	
433.92	70.7	H	80.8	-10.1	Avg	1	1.5	
867.84	54.3	H	80.8	-26.5	Peak	1	225	
867.84	46.7	H	60.8	-14.1	Avg	1	225	
1301.76	42.41	H	74	-31.59	Peak	1.51	180	
1301.76	34.81	H	54	-19.19	Avg	1.51	180	
1735.7	48.97	H	80.8	-31.83	Peak	2.01	225	
1735.7	41.37	H	60.8	-19.43	Avg	2.01	225	
2169.6	49.72	H	80.8	-31.08	Peak	1.98	180	
2169.6	42.12	H	60.8	-18.68	Avg	1.98	180	
2603.52	46.24	H	80.8	-34.56	Peak	2.21	135	
2603.52	38.64	H	60.8	-22.16	Avg	2.21	135	
3037.44	41.99	H	80.8	-38.81	Peak	1.74	225	
3037.44	34.39	H	60.8	-26.41	Avg	1.74	225	
3471.36	44.14	H	80.8	-36.66	Peak	1.18	135	
3471.36	36.54	H	60.8	-24.26	Avg	1.18	135	
3905.28	45.57	H	74	-28.43	Peak	2.17	135	
3905.28	37.97	H	54	-16.03	Avg	2.17	135	
4339.2	42.27	H	74	-31.73	Peak	1.12	135	
4339.2	34.67	H	54	-19.33	Avg	1.12	135	

**FCC 15.231 and FCC Class B**

BTX Holdings, Inc.  
MMC Key-Fob Transmitter  
Model: KF-MMC001

Date: 08/16/06

Labs: B and D

Tested By: Kyle Fujimoto

**Digital Portion and Non-Harmonic Emissions -- 10 kHz to 4400 MHz**

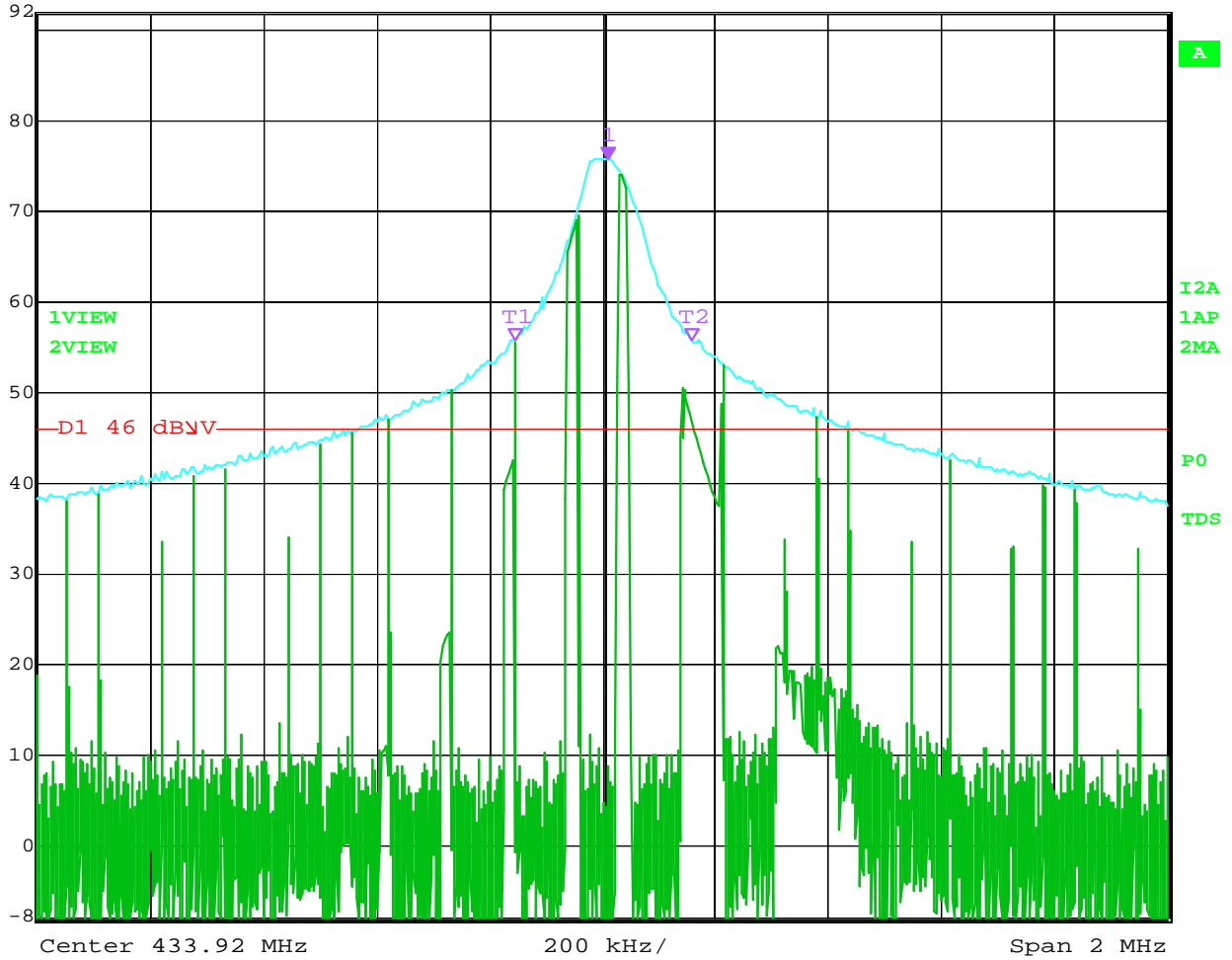
Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions Found
								From 10 kHz to 4400 MHz
								for the Digital Portion
								in both Vertical and
								Horizontal Polarizations
								No Emissions Found
								From 10 kHz to 4400 MHz
								for the Non-Harmonic
								Tx Emissions
								in both Vertical
								and Horizontal Polarizations

***-20 dB BANDWIDTH***

***DATA SHEET***



Ref Lvl	92 dB $\mu$ V	Marker 1 [T2 ndB]	ndB	20.00 dB	RBW	100 kHz	RF Att	10 dB
		BW	312.62525050 kHz		VBW	100 kHz	Unit	dB $\mu$ V
					SWT	5.5 ms		



Date: 16.AUG.2006 13:55:54

-20 dB Bandwidth of the Fundamental