

*FCC PART 15, SUBPART B and C
TEST REPORT**for***KEYFOB TRANSMITTER****P/N: OTX-xxx-HH-KF#-MS**

Prepared for

LINX TECHNOLOGIES
575 S.E. ASHLEY PLACE
GRANTS PASS, OREGON 97526

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DATE: JULY 11, 2005

	REPORT BODY	APPENDICES					TOTAL
		A	B	C	D	E	
PAGES	16	2	2	2	17	34	73

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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: Keyfob Transmitter
P/N: OTX-xxx-HH-KF#-MS
S/N: N/A

Product Description: See Expository Statement.

Modifications: The EUT was modified during the testing. Please see the list located in Appendix B.

Manufacturer: Linx Technologies
575 S.E. Ashley Place
Grants Pass, Oregon 97526

Test Dates: June 20, 21, 23, and 30, 2005

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: 2003

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

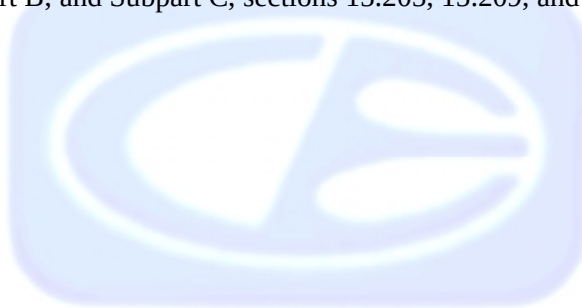
SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz - 30 MHz	This test was not performed because the EUT operates on batteries only and cannot be plugged into the AC public mains.
2	Radiated RF Emissions, 10 kHz - 4400 MHz	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.
3	-20 dB Bandwidth of the Fundamental	Complies with the limits of Subpart C, sections 15.231 [c].



1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Keyfob Transmitter P/N: OTX-xxx-HH-KF#-MS. 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, 15.209, 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

Linx Technologies

Paul True	President
Justin Hopper	Engineer
Ammon Gomez	Senior Product Engineer

Compatible Electronics, Inc.

Kyle Fujimoto	Test Engineer
Benigno Chavez	Test Engineer
James Ross	Test Engineer
Michael Christensen	Lab Manager

2.4 Date Test Sample was Received

The test sample was received on June 20, 2005.

2.5 Disposition of the Test Sample

The test sample was returned to Linx Technologies on July 11, 2005.

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
PCB	Printed Circuit Board
TX	Transmit
RX	Receive



3. APPLICABLE DOCUMENTS

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

SPEC	TITLE
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
ANSI C63.4: 2003	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz



4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

Setup and operation of the equipment under test.

Specifics of the EUT and Peripherals Tested

The Keyfob Transmitter P/N: OTX-xxx-HH-KF#-MS (EUT) was tested as a stand alone unit and tested in three orthogonal axis. The EUT was continuously transmitting.

The antenna is a PCB trace.

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

The EUT comes in three different versions, the 315 MHz version, the 418 MHz version, and the 433.92 MHz version.

Each version of the transmitter was tested separately.

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



4.1.1 Cable Construction and Termination

There were no external cables connected to the EUT.



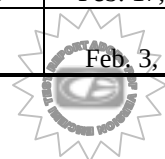
5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT**5.1 EUT and Accessory List**

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
KEYFOB TRANSMITTER (EUT)	LINX TECHNOLOGIES	P/N: OTX-xxx-HH- KF#-MS	N/A	OJM-OTX-XXX-KFMSA



5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Radiate Emissions Data Capture Program	Compatible Electronics	2.0	N/A	N/A	N/A
Emissions Program	Compatible Electronics	2.3 (SR19)	N/A	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08768	June 21, 2005	June 21, 2006
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22262	June 21, 2005	June 21, 2006
Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01363	June 17, 2005	June 17, 2006
Preamplifier	Com Power	PA-103	1582	February 5, 2005	Feb. 5, 2006
Biconical Antenna	Com Power	AB-100	1548	September 29, 2004	Sept. 29, 2005
Log Periodic Antenna	Com Power	AL-100	16060	September 27, 2004	Sept. 27, 2005
Computer	Hewlett Packard	D5251A 888	US74458128	N/A	N/A
Monitor	Hewlett Packard	D5258A	DK74889705	N/A	N/A
Loop Antenna	Com-Power	AL-130	17089	September 3, 2004	Sept. 3, 2005
Horn Antenna	Antenna Research	DRG-118/A	1053	January 16, 2004	Jan. 16, 2006
Microwave Preamplifier	Com-Power	PA-122	25195	February 25, 2005	Feb. 25, 2006
EMI Receiver	Rohde & Schwarz	ESIB40	100172	October 28, 2004	Oct. 28, 2005
Antenna Mast	Com-Power	AM-100	N/A	N/A	N/A
Turntable	Com-Power	TT-100	N/A	N/A	N/A
Antenna Mast	EMCO	2090	9609-1176	N/A	N/A
Biconical Antenna	Com Power	AB-900	15250	March 11, 2005	Mar. 11, 2006
Log Periodic Antenna	Com Power	AL-100	16202	February 17, 2005	Feb. 17, 2006
Preamplifier	Com Power	PA-103	1582	February 3, 2005	Feb. 3, 2006



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 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-103 was used for frequencies from 30 MHz to 1 GHz, and the Com-Power Microwave Preamplifier Model: PA-122 was used for frequencies above 1 GHz. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer and EMI Receiver record the highest measured reading over all the sweeps.

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

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
9 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 4.40 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. 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 limits of CFR Title 47, Part 15, Subpart B; and Subpart C, section 15.205, 15.209 and 15.231 for radiated emissions.

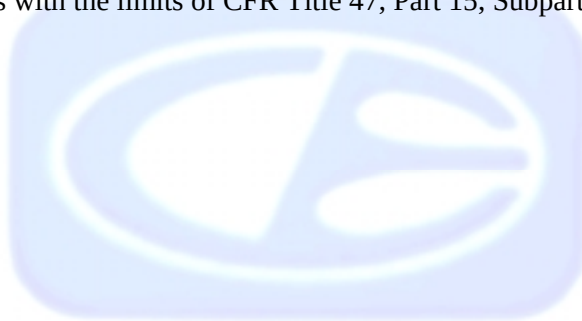


7.3 Bandwidth of the Fundamental

The -20 dB bandwidth was checked to see that it was within 0.25% of the fundamental frequency for the EUT. Data sheets of the -20 dB bandwidth are 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 Keyfob Transmitter P/N: OTX-xxx-HH-KF#-MS 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.

- 1) Change R1 to 10 ohms on the 315 MHz version
- 2) Change R1 to 160 ohms on the 418 MHz version
- 3) Change R1 to 360 ohms on the 433.92 MHz version



APPENDIX C

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



ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Keyfob Transmitter
P/N: OTX-xxx-HH-KF#-MS
S/N: N/A

There were no additional models covered under this report.



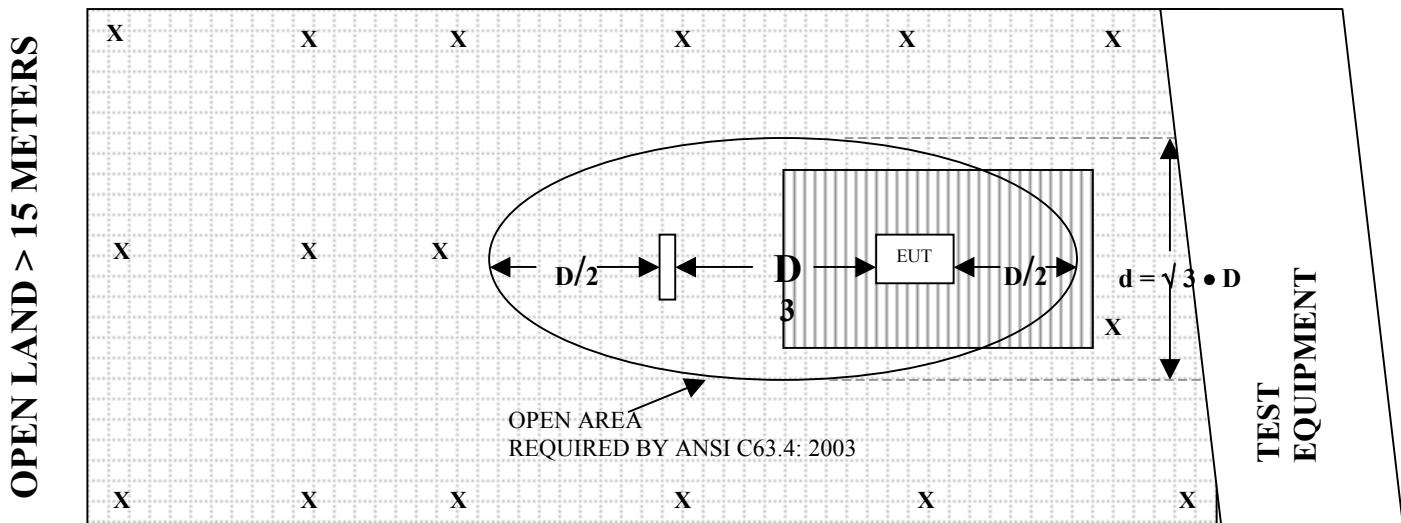
APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

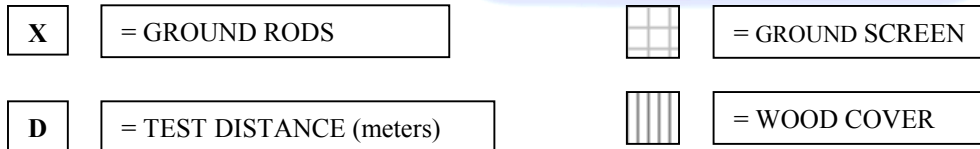


FIGURE 1: PLOT MAP AND LAYOUT OF RADIATED TEST SITE

OPEN LAND > 15 METERS



OPEN LAND > 15 METERS



COM-POWER AB-100**BICONICAL ANTENNA****S/N: 1548****CALIBRATION DATE: SEPTEMBER 29, 2004**

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	13.87	140	12.02
35	12.48	150	11.70
40	12.66	160	13.55
45	12.49	175	14.36
50	12.47	180	14.67
60	10.30	200	14.95
70	8.26	250	16.86
80	7.94	275	18.16
90	8.36	287.5	23.23
100	8.73	295	19.10
120	11.06	300	19.70
125	10.64		



COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16060

CALIBRATION DATE: SEPTEMBER 27, 2004

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	12.30	700	19.20
400	14.10	800	21.30
500	15.20	900	21.90
600	15.90	1000	25.20



COM-POWER PA-102**PREAMPLIFIER**

S/N: 1017

CALIBRATION DATE: JANUARY 5, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	38.4	300	38.5
40	38.3	350	38.5
50	38.2	400	38.3
60	38.4	450	38.0
70	38.4	500	38.0
80	38.3	550	38.1
90	38.3	600	38.2
100	37.7	650	37.8
125	38.4	700	37.9
150	38.6	750	37.5
175	38.4	800	37.2
200	38.5	850	37.6
225	38.	900	36.9
250	38.6	950	37.0
275	38.4	1000	36.3



COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15250

CALIBRATION DATE: MARCH 11, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	10.90	120	13.10
35	10.90	125	12.40
40	10.90	140	11.90
45	10.30	150	11.80
50	11.40	160	13.30
60	10.40	175	15.40
70	7.40	180	14.60
80	6.20	200	15.70
90	8.20	250	16.50
100	10.10	300	19.20



COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16202

CALIBRATION DATE: FEBRUARY 17, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	12.70	700	19.20
400	13.70	800	19.40
500	16.00	900	21.50
600	16.50	1000	23.50



COM-POWER PA-103**PREAMPLIFIER**

S/N: 1582

CALIBRATION DATE: FEBRUARY 3, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	33.2	300	33.0
40	33.0	350	32.8
50	33.1	400	32.8
60	33.0	450	32.8
70	33.2	500	32.5
80	33.2	550	32.5
90	33.1	600	32.4
100	33.2	650	32.4
125	33.1	700	32.3
150	33.0	750	32.2
175	33.0	800	32.2
200	33.0	850	32.4
225	33.0	900	31.8
250	33.0	950	32.3
275	32.9	1000	32.0



COM-POWER PA-122
MICROWAVE PREAMPLIFIER

S/N: 25195

CALIBRATION DATE: FEBRUARY 25, 2005

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	31.45	6.0	31.35
1.1	31.34	6.5	31.10
1.2	31.29	7.0	30.54
1.3	31.28	7.5	29.72
1.4	31.25	8.0	29.22
1.5	31.21	8.5	28.75
1.6	31.14	9.0	28.67
1.7	31.07	9.5	29.14
1.8	31.12	10.0	30.12
1.9	31.04	11.0	29.30
2.0	31.20	12.0	29.86
2.5	31.56	13.0	30.57
3.0	32.17	14.0	29.90
3.5	32.56	15.0	30.14
4.0	32.51	16.0	31.13
4.5	32.52	17.0	29.97
5.0	32.33	18.0	28.77
5.5	31.60		



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

S/N: 1053

CALIBRATION DATE: JANUARY 16, 2004

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	24.4	10.0	38.7
1.5	25.2	10.5	39.0
2.0	28.2	11.0	38.9
2.5	28.5	11.5	41.3
3.0	30.1	12.0	40.5
3.5	31.0	12.5	40.0
4.0	31.2	13.0	40.2
4.5	31.9	13.5	40.5
5.0	33.2	14.0	41.6
5.5	33.7	14.5	44.8
6.0	34.3	15.0	41.4
6.5	35.0	15.5	39.2
7.0	36.7	16.0	39.4
7.5	37.3	16.5	40.9
8.0	37.1	17.0	42.6
8.5	37.3	17.5	45.1
9.0	37.7	18.0	41.7
9.5	38.6		



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

S/N: 17089

CALIBRATION DATE: SEPTEMBER 3, 2004

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-40.8	10.7
0.01	-40.9	10.6
0.02	-41.8	9.7
0.05	-42.0	9.5
0.07	-41.5	10.0
0.1	-41.7	9.8
0.2	-44.1	7.4
0.3	-41.6	9.9
0.5	-41.5	10.0
0.7	-41.4	10.1
1	-41.0	10.5
2	-40.6	10.9
3	-40.8	10.7
4	-41.0	10.5
5	-40.4	11.1
10	-40.7	10.8
15	-41.6	9.9
20	-41.3	10.2
25	-43.0	8.5
30	-42.6	8.9





FRONT VIEW

LINX TECHNOLOGIES
KEYFOB TRANSMITTER
P/N: OTX-xxx-HH-KF#-MS
FCC SUBPART B AND C – RADIATED EMISSIONS

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





REAR VIEW

LINX TECHNOLOGIES
KEYFOB TRANSMITTER
P/N: OTX-xxx-HH-KF#-MS
FCC SUBPART B AND C – RADIATED EMISSIONS

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





FRONT VIEW

LINX TECHNOLOGIES
KEYFOB TRANSMITTER
P/N: OTX-xxx-HH-KF#-MS
FCC SUBPART B AND C – RADIATED EMISSIONS

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





REAR VIEW

LINX TECHNOLOGIES
KEYFOB TRANSMITTER
P/N: OTX-xxx-HH-KF#-MS
FCC SUBPART B AND C – RADIATED EMISSIONS

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



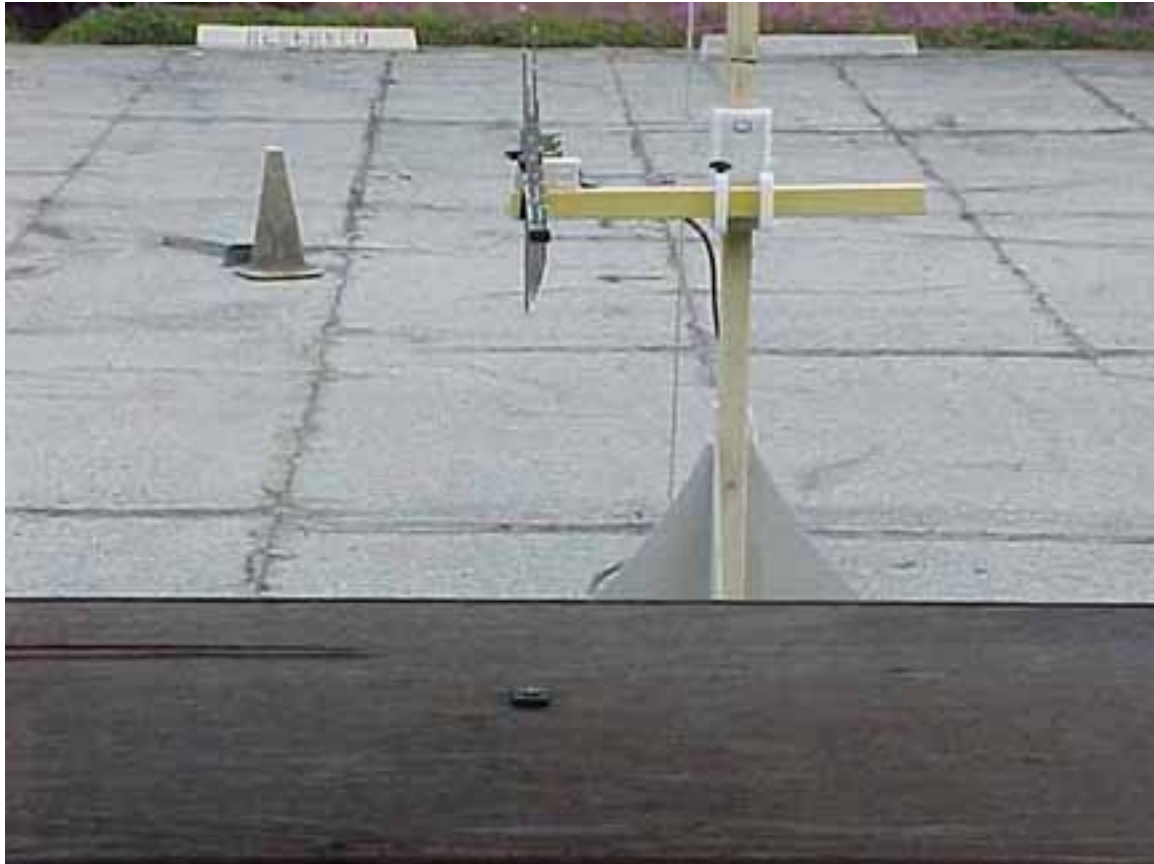


FRONT VIEW

LINX TECHNOLOGIES
KEYFOB TRANSMITTER
P/N: OTX-xxx-HH-KF#-MS
FCC SUBPART B AND C – RADIATED EMISSIONS

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





REAR VIEW

LINX TECHNOLOGIES
KEYFOB TRANSMITTER
P/N: OTX-xxx-HH-KF#-MS
FCC SUBPART B AND C – RADIATED EMISSIONS

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



APPENDIX E

DATA SHEETS



RADIATED EMISSIONS

DATA SHEETS



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	Linx Technologies, Inc.	DATE	6/21/05
EUT	Keyfob Transmitter	DUTY CYCLE	45.27 %
MODEL	OTX-xxx-HH-KF#-MS	PEAK TO AVG	-6.88379011 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	James Ross	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
315.0000	52.4	45.5 A	V	1.0	180	X		12.9	4.4	0.0	0.0	0.0	62.8	-12.8	75.6	
315.0000	61.3	54.4 A	V	1.7	260	Y		12.9	4.4	0.0	0.0	0.0	71.7	-3.9	75.6	
315.0000	53.1	46.2 A	V	1.8	270	Z		12.9	4.4	0.0	0.0	0.0	63.5	-12.1	75.6	
315.0000	64.7	57.8 A	H	1.0	270	X		12.9	4.4	0.0	0.0	0.0	75.1	-0.5	75.6	
315.0000	49.5	42.6 A	H	1.0	135	Y		12.9	4.4	0.0	0.0	0.0	59.9	-15.7	75.6	
315.0000	63.0	56.1 A	H	1.0	0	Z		12.9	4.4	0.0	0.0	0.0	73.4	-2.2	75.6	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	Linx Technologies, Inc.	DATE	6/21/05
EUT	Keyfob Transmitter	DUTY CYCLE	45.27 %
MODEL	OTX-xxx-HH-KF#-MS	PEAK TO AVG	-6.88379011 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	James Ross	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
630.0000	38.4	31.5 A	V	1.3	185	X		17.3	6.7	32.4	0.0	0.0	23.1	-32.5	55.6	
630.0000	42.9	36.0 A	V	1.8	45	Y		17.3	6.7	32.4	0.0	0.0	27.6	-28.0	55.6	
630.0000	37.4	30.5 A	V	1.9	270	Z		17.3	6.7	32.4	0.0	0.0	22.1	-33.5	55.6	
630.0000	43.0	36.1 A	H	1.1	270	X		17.3	6.7	32.4	0.0	0.0	27.7	-27.9	55.6	
630.0000	39.1	32.2 A	H	1.1	0	Y		17.3	6.7	32.4	0.0	0.0	23.8	-31.8	55.6	
630.0000	40.7	33.8 A	H	1.0	275	Z		17.3	6.7	32.4	0.0	0.0	25.4	-30.2	55.6	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	Linx Technologies, Inc.	DATE	6/21/05
EUT	Keyfob Transmitter	DUTY CYCLE	45.27 %
MODEL	OTX-xxx-HH-KF#-MS	PEAK TO AVG	-6.88379011 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	James Ross	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
930.0000	36.9	30.0 A	V	1.1	115	X		22.4	6.8	32.3	0.0	0.0	27.0	-28.6	55.6	
930.0000	37.7	30.8 A	V	1.1	180	Y		22.4	6.8	32.3	0.0	0.0	27.8	-27.8	55.6	
930.0000	35.4	28.5 A	V	1.2	180	Z		22.4	6.8	32.3	0.0	0.0	25.5	-30.1	55.6	
930.0000	37.1	30.2 A	H	1.3	90	X		22.4	6.8	32.3	0.0	0.0	27.2	-28.4	55.6	
930.0000	35.9	29.0 A	H	1.2	0	Y		22.4	6.8	32.3	0.0	0.0	26.0	-29.6	55.6	
930.0000	37.0	30.1 A	H	1.4	180	Z		22.4	6.8	32.3	0.0	0.0	27.1	-28.5	55.6	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05

Lab: B

Tested By: Ben C.

315 MHz Version - X Axis

Duty Cycle: 45.27%

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1260	36.63	V	75.6	-38.97	Peak	3.26	180	
1260	29.75	V	55.6	-25.85	Avg	3.26	180	
1575	44.33	V	74	-29.67	Peak	2.72	225	
1575	37.45	V	54	-16.55	Avg	2.72	225	
1890	50.53	V	75.6	-25.07	Peak	2.71	180	
1890	43.65	V	55.6	-11.95	Avg	2.71	180	
2205	41.12	V	74	-32.88	Peak	1.59	0	
2205	34.24	V	54	-19.76	Avg	1.59	0	
2520	47.02	V	75.6	-28.58	Peak	1.63	90	
2520	40.14	V	55.6	-15.46	Avg	1.63	90	
2835	40.06	V	74	-33.94	Peak	1.15	90	
2835	33.18	V	54	-20.82	Avg	1.15	90	
3150	37.8	V	75.6	-37.8	Peak	1.48	90	
3150	30.92	V	55.6	-24.68	Avg	1.48	90	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05
 Lab: B
 Tested By: Ben C.

315 MHz Version - X Axis

Duty Cycle: 45.27%

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1260	38.88	H	75.6	-36.72	Peak	1.17	90	
1260	32	H	55.6	-23.6	Avg	1.17	90	
1575	46.28	H	74	-27.72	Peak	1.12	90	
1575	39.4	H	54	-14.6	Avg	1.12	90	
1890	52.73	H	75.6	-22.87	Peak	1	90	
1890	45.85	H	55.6	-9.75	Avg	1	90	
2205	46.49	H	74	-27.51	Peak	1.78	90	
2205	39.61	H	54	-14.39	Avg	1.78	90	
2520	52.35	H	75.6	-23.25	Peak	1.43	90	
2520	45.47	H	55.6	-10.13	Avg	1.43	90	
2835	44.35	H	74	-29.65	Peak	3.28	90	
2835	37.47	H	54	-16.53	Avg	3.28	90	
3150	40.12	H	75.6	-35.48	Peak	2.61	90	
3150	33.24	H	55.6	-22.36	Avg	2.61	90	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05

Lab: B

Tested By: Ben C.

315 MHz Version - Y Axis

Duty Cycle: 45.27%

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1260	42.69	V	75.6	-32.91	Peak	1	90	
1260	35.81	V	55.6	-19.79	Avg	1	90	
1575	45.76	V	74	-28.24	Peak	2.39	135	
1575	38.88	V	54	-15.12	Avg	2.39	135	
1890	53.1	V	75.6	-22.5	Peak	1.81	90	
1890	46.22	V	55.6	-9.38	Avg	1.81	90	
2205	47.16	V	74	-26.84	Peak	1.41	90	
2205	40.28	V	54	-13.72	Avg	1.41	90	
2520	50.59	V	75.6	-25.01	Peak	1.18	90	
2520	43.71	V	55.6	-11.89	Avg	1.18	90	
2835	43.32	V	74	-30.68	Peak	1.97	45	
2835	36.44	V	54	-17.56	Avg	1.97	45	
3150	41.02	V	75.6	-34.58	Peak	1.49	135	
3150	34.14	V	55.6	-21.46	Avg	1.49	135	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05
 Lab: B
 Tested By: Ben C.

315 MHz Version - Y Axis

Duty Cycle: 45.27%

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1260	34.27	H	75.6	-41.33	Peak	2.55	90	
1260	27.39	H	55.6	-28.21	Avg	2.55	90	
1575	41.51	H	74	-32.49	Peak	3.62	90	
1575	34.63	H	54	-19.37	Avg	3.62	90	
1890	48.27	H	75.6	-27.33	Peak	2.03	90	
1890	41.39	H	55.6	-14.21	Avg	2.03	90	
2205	42.79	H	74	-31.21	Peak	1.64	135	
2205	35.91	H	54	-18.09	Avg	1.64	135	
2520	46.17	H	75.6	-29.43	Peak	3.31	45	
2520	39.29	H	55.6	-16.31	Avg	3.31	45	
2835	43.1	H	74	-30.9	Peak	2.97	45	
2835	36.22	H	54	-17.78	Avg	2.97	45	
3150	40.98	H	75.6	-34.62	Peak	1.88	225	
3150	34.1	H	55.6	-21.5	Avg	1.88	225	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05

Lab: B

Tested By: Ben C.

315 MHz Version - Z Axis

Duty Cycle: 45.27%

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1260	38.77	V	75.6	-36.83	Peak	2.25	270	
1260	31.89	V	55.6	-23.71	Avg	2.25	270	
1575	42.31	V	74	-31.69	Peak	3.25	270	
1575	35.43	V	54	-18.57	Avg	3.25	270	
1890	48.36	V	75.6	-27.24	Peak	2.51	270	
1890	41.48	V	55.6	-14.12	Avg	2.51	270	
2205	43.59	V	74	-30.41	Peak	2.93	270	
2205	36.71	V	54	-17.29	Avg	2.93	270	
2520	46.71	V	75.6	-28.89	Peak	1.34	270	
2520	39.83	V	55.6	-15.77	Avg	1.34	270	
2835	44.03	V	74	-29.97	Peak	2.15	270	
2835	37.15	V	54	-16.85	Avg	2.15	270	
3150	41.89	V	75.6	-33.71	Peak	2.4	135	
3150	35.01	V	55.6	-20.59	Avg	2.4	135	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05
 Lab: B
 Tested By: Ben C.

315 MHz Version - Z Axis

Duty Cycle: 45.27%

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1260	39.87	H	75.6	-35.73	Peak	1.52	180	
1260	32.99	H	55.6	-22.61	Avg	1.52	180	
1575	44.01	H	74	-29.99	Peak	1	0	
1575	37.13	H	54	-16.87	Avg	1	0	
1890	47.07	H	75.6	-28.53	Peak	3.67	180	
1890	40.19	H	55.6	-15.41	Avg	3.67	180	
2205	46.63	H	74	-27.37	Peak	1.21	180	
2205	39.75	H	54	-14.25	Avg	1.21	180	
2520	52.12	H	75.6	-23.48	Peak	1.04	180	
2520	45.24	H	55.6	-10.36	Avg	1.04	180	
2835	45.48	H	74	-28.52	Peak	3.29	180	
2835	38.6	H	54	-15.4	Avg	3.29	180	
3150	39.23	H	75.6	-36.37	Peak	1.94	180	
3150	32.35	H	55.6	-23.25	Avg	1.94	180	

Linux Technologies
Keyfob Transmitter
M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05
Labs: A and B
Tested By: Ben C.

315 MHz Version

Non Harmonic Emissions from the EUT -- 10 kHz to 3150 MHz

[illegible]

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	Linx Technologies, Inc.	DATE	6/21/05
EUT	Keyfob Transmitter	DUTY CYCLE	45.27 %
MODEL	OTX-xxx-HH-KF#-MS	PEAK TO AVG	-6.88379011 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	James Ross	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
418.0000	51.4	44.5 A	V	1.0	355	X		14.1	5.5	0.0	0.0	0.0	64.1	-16.1	80.2	
418.0000	66.7	59.8 A	V	1.2	280	Y		14.1	5.5	0.0	0.0	0.0	79.4	-0.8	80.2	
418.0000	61.2	54.3 A	V	1.1	270	Z		14.1	5.5	0.0	0.0	0.0	73.9	-6.3	80.2	
418.0000	67.0	60.1 A	H	1.0	60	X		14.1	5.5	0.0	0.0	0.0	79.7	-0.5	80.2	
418.0000	55.4	48.5 A	H	1.2	45	Y		14.1	5.5	0.0	0.0	0.0	68.1	-12.1	80.2	
418.0000	62.2	55.3 A	H	1.7	0	Z		14.1	5.5	0.0	0.0	0.0	74.9	-5.3	80.2	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	Linx Technologies, Inc.	DATE	6/21/05
EUT	Keyfob Transmitter	DUTY CYCLE	45.27 %
MODEL	OTX-xxx-HH-KF#-MS	PEAK TO AVG	-6.88379011 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	James Ross	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
836.0000	48.6	41.7 A	V	1.1	265	X		20.2	6.6	32.3	0.0	0.0	36.2	-24.0	60.2	
836.0000	48.5	41.6 A	V	1.2	260	Y		20.2	6.6	32.3	0.0	0.0	36.1	-24.1	60.2	
836.0000	48.4	41.5 A	V	1.2	260	Z		20.2	6.6	32.3	0.0	0.0	36.0	-24.2	60.2	
836.0000	51.0	44.1 A	H	1.2	225	X		20.2	6.6	32.3	0.0	0.0	38.6	-21.6	60.2	
836.0000	51.1	44.2 A	H	1.2	270	Y		20.2	6.6	32.3	0.0	0.0	38.7	-21.5	60.2	
836.0000	49.7	42.8 A	H	1.2	270	Z		20.2	6.6	32.3	0.0	0.0	37.3	-22.9	60.2	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05

Lab: B

Tested By: Ben C.

418 MHz Version - X Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1254	32.15	V	80.2	-48.05	Peak	1	315	
1254	25.27	V	60.2	-34.93	Avg	1	315	
1672	46.08	V	74	-27.92	Peak	3.36	0	
1672	39.2	V	54	-14.8	Avg	3.36	0	
2090	48.81	V	80.2	-31.39	Peak	2.95	315	
2090	41.93	V	60.2	-18.27	Avg	2.95	315	
2508	50.34	V	80.2	-29.86	Peak	2.78	0	
2508	43.46	V	60.2	-16.74	Avg	2.78	0	
2926	50.91	V	80.2	-29.29	Peak	3.17	315	
2926	44.03	V	60.2	-16.17	Avg	3.17	315	
3344	43.27	V	80.2	-36.93	Peak	2.83	45	
3344	36.39	V	60.2	-23.81	Avg	2.83	45	
3762	40.99	V	74	-33.01	Peak	2.61	0	
3762	34.11	V	54	-19.89	Avg	2.61	0	
4180	40.9	V	74	-33.1	Peak	2.82	0	
4180	34.02	V	54	-19.98	Avg	2.82	0	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05
 Lab: B
 Tested By: Ben C.

418 MHz Version - X Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1254	32.09	H	80.2	-48.11	Peak	3.65	270	
1254	25.21	H	60.2	-34.99	Avg	3.65	270	
1672	45.28	H	74	-28.72	Peak	2.79	270	
1672	38.4	H	54	-15.6	Avg	2.79	270	
2090	48.63	H	80.2	-31.57	Peak	1.91	45	
2090	41.75	H	60.2	-18.45	Avg	1.91	45	
2508	52.94	H	80.2	-27.26	Peak	3.47	45	
2508	46.06	H	60.2	-14.14	Avg	3.47	45	
2926	46.05	H	80.2	-34.15	Peak	1.24	315	
2926	39.17	H	60.2	-21.03	Avg	1.24	315	
3344	45.27	H	80.2	-34.93	Peak	1	0	
3344	38.39	H	60.2	-21.81	Avg	1	0	
3762	40.68	H	74	-33.32	Peak	2.86	315	
3762	33.8	H	54	-20.2	Avg	2.86	315	
4180	41.12	H	74	-32.88	Peak	3.59	45	
4180	34.24	H	54	-19.76	Avg	3.59	45	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05
 Lab: B
 Tested By: Ben C.

418 MHz Version - Y Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1254	33.48	V	80.2	-46.72	Peak	1	90	
1254	26.6	V	60.2	-33.6	Avg	1	90	
1672	46.76	V	74	-27.24	Peak	1	180	
1672	39.88	V	54	-14.12	Avg	1	180	
2090	50.78	V	80.2	-29.42	Peak	3.29	180	
2090	43.9	V	60.2	-16.3	Avg	3.29	180	
2508	51.83	V	80.2	-28.37	Peak	2.46	180	
2508	44.95	V	60.2	-15.25	Avg	2.46	180	
2926	50.79	V	80.2	-29.41	Peak	1.68	0	
2926	43.91	V	60.2	-16.29	Avg	1.68	0	
3344	43.28	V	80.2	-36.92	Peak	1.07	0	
3344	36.4	V	60.2	-23.8	Avg	1.07	0	
3762	40.54	V	74	-33.46	Peak	1.08	315	
3762	33.66	V	54	-20.34	Avg	1.08	315	
4180	40.94	V	74	-33.06	Peak	1	180	
4180	34.06	V	54	-19.94	Avg	1	180	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05
 Lab: B
 Tested By: Ben C.

418 MHz Version - Y Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1254	32.04	H	80.2	-48.16	Peak	2.75	0	
1254	25.16	H	60.2	-35.04	Avg	2.75	0	
1672	41.15	H	74	-32.85	Peak	2.59	45	
1672	34.27	H	54	-19.73	Avg	2.59	45	
2090	48.41	H	80.2	-31.79	Peak	2.86	180	
2090	41.53	H	60.2	-18.67	Avg	2.86	180	
2508	47.67	H	80.2	-32.53	Peak	2.1	180	
2508	40.79	H	60.2	-19.41	Avg	2.1	180	
2926	44.14	H	80.2	-36.06	Peak	2.46	225	
2926	37.26	H	60.2	-22.94	Avg	2.46	225	
3344	44.48	H	80.2	-35.72	Peak	2.61	180	
3344	37.6	H	60.2	-22.6	Avg	2.61	180	
3762	41.93	H	74	-32.07	Peak	1.99	180	
3762	35.05	H	54	-18.95	Avg	1.99	180	
4180	41.7	H	74	-32.3	Peak	1.5	180	
4180	34.82	H	54	-19.18	Avg	1.5	180	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05

Lab: B

Tested By: Ben C.

418 MHz Version - Z Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1254	34.22	V	80.2	-45.98	Peak	3.28	90	
1254	27.34	V	60.2	-32.86	Avg	3.28	90	
1672	45.49	V	74	-28.51	Peak	3.09	225	
1672	38.61	V	54	-15.39	Avg	3.09	225	
2090	47.76	V	80.2	-32.44	Peak	1	315	
2090	40.88	V	60.2	-19.32	Avg	1	315	
2508	46.13	V	80.2	-34.07	Peak	1.08	270	
2508	39.25	V	60.2	-20.95	Avg	1.08	270	
2926	48.35	V	80.2	-31.85	Peak	2.54	270	
2926	41.47	V	60.2	-18.73	Avg	2.54	270	
3344	43.88	V	80.2	-36.32	Peak	1.86	270	
3344	37	V	60.2	-23.2	Avg	1.86	270	
3762	41.99	V	74	-32.01	Peak	1.4	180	
3762	35.11	V	54	-18.89	Avg	1.4	180	
4180	43.57	V	74	-30.43	Peak	1	270	
4180	36.69	V	54	-17.31	Avg	1	270	

FCC 15.231

Linx Technologies
Keyfob Transmitter
M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05
Lab: B
Tested By: Ben C.

418 MHz Version - Z Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1254	34.8	H	80.2	-45.4	Peak	1.12	180	
1254	27.92	H	60.2	-32.28	Avg	1.12	180	
1672	45.59	H	74	-28.41	Peak	2.58	180	
1672	38.71	H	54	-15.29	Avg	2.58	180	
2090	49.87	H	80.2	-30.33	Peak	1.85	225	
2090	42.99	H	60.2	-17.21	Avg	1.85	225	
2508	51.2	H	80.2	-29	Peak	3.31	135	
2508	44.32	H	60.2	-15.88	Avg	3.31	135	
2926	50.49	H	80.2	-29.71	Peak	3.43	135	
2926	43.61	H	60.2	-16.59	Avg	3.43	135	
3344	42.34	H	80.2	-37.86	Peak	1.5	180	
3344	35.46	H	60.2	-24.74	Avg	1.5	180	
3762	43.08	H	74	-30.92	Peak	2.63	180	
3762	36.2	H	54	-17.8	Avg	2.63	180	
4180	42.76	H	74	-31.24	Peak	2.31	180	
4180	35.88	H	54	-18.12	Avg	2.31	180	

FCC 15.231 and FCC Class B

Linx Technologies

Keyfob Transmitter

M/N: OTX-xxx-HH-KF#-MS

Date: 06/21/05

Labs: A and B

Tested By: Ben C.

418 MHz Version**Non Harmonic Emissions from the EUT -- 10 kHz to 4180 MHz**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Non Harmonic
								Emissions found
								from the EUT
								in Both Vertical
								and Horizontal
								Polarizations
								10 kHz to 4180 MHz
3762	-6.88	H	54	-60.88	Avg	2.63	180	
4180	42.76	H	74	-31.24	Peak	2.31	180	
4180	35.88	H	54	-18.12	Avg	2.31	180	

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	Linx Technologies, Inc.	DATE	6/20/05
EUT	Keyfob Transmitter	DUTY CYCLE	45.27 %
MODEL	OTX-xxx-HH-KF#-MS	PEAK TO AVG	-6.88379011 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	Benigno_Chavez	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
433.9200	51.3	44.4 A	V	1.0	315	X		14.5	5.6	0.0	0.0	0.0	64.5	-16.3	80.8	
433.9200	66.4	59.5 A	V	1.3	270	Y		14.5	5.6	0.0	0.0	0.0	79.6	-1.2	80.8	
433.9200	58.8	51.9 A	V	1.0	270	Z		14.5	5.6	0.0	0.0	0.0	72.0	-8.8	80.8	
433.9200	67.2	60.3 A	H	1.0	90	X		14.5	5.6	0.0	0.0	0.0	80.4	-0.4	80.8	
433.9200	55.5	48.6 A	H	1.5	225	Y		14.5	5.6	0.0	0.0	0.0	68.7	-12.1	80.8	
433.9200	65.9	59.0 A	H	1.0	225	Z		14.5	5.6	0.0	0.0	0.0	79.1	-1.7	80.8	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	Linx Technologies, Inc.	DATE	6/20/05
EUT	Keyfob Transmitter	DUTY CYCLE	45.27 %
MODEL	OTX-xxx-HH-KF#-MS	PEAK TO AVG	-6.88379011 dB
S/N	N/A	TEST DIST.	3 Meters
TEST ENGINEER	Benigno_Chavez	LAB	A

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
867.8400	36.1	29.2 A	V	1.0	0	X		20.8	6.7	32.2	0.0	0.0	24.6	-36.2	60.8	
867.8400	48.0	41.1 A	V	1.0	135	Y		20.8	6.7	32.2	0.0	0.0	36.5	-24.3	60.8	
867.8400	44.1	37.2 A	V	1.0	270	Z		20.8	6.7	32.2	0.0	0.0	32.6	-28.2	60.8	
867.8400	53.2	46.3 A	H	1.0	90	X		20.8	6.7	32.2	0.0	0.0	41.7	-19.1	60.8	
867.8400	39.5	32.6 A	H	1.0	270	Y		20.8	6.7	32.2	0.0	0.0	28.0	-32.8	60.8	
867.8400	47.9	41.0 A	H	1.0	0	Z		20.8	6.7	32.2	0.0	0.0	36.4	-24.4	60.8	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/30/05
 Lab: B
 Tested By: Kyle Fujimoto

433.92 MHz Version - X Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1301.76	32.18	V	74	-41.82	Peak	2.57	180	
1301.76	25.3	V	54	-28.7	Avg	2.57	180	
1735.7	45.6	V	80.8	-35.2	Peak	2.42	225	
1735.7	38.72	V	60.8	-22.08	Avg	2.42	225	
2169.6	51.41	V	80.8	-29.39	Peak	2.31	225	
2169.6	44.53	V	60.8	-16.27	Avg	2.31	225	
2603.52	48.05	V	80.8	-32.75	Peak	2.68	225	
2603.52	41.17	V	60.8	-19.63	Avg	2.68	225	
3037.44	51.14	V	80.8	-29.66	Peak	2.68	180	
3037.44	44.26	V	60.8	-16.54	Avg	2.68	180	
3471.36	43.57	V	80.8	-37.23	Peak	1.66	180	
3471.36	36.69	V	60.8	-24.11	Avg	1.66	180	
3905.28	39.97	V	74	-34.03	Peak	1.53	270	
3905.28	33.09	V	54	-20.91	Avg	1.53	270	
4339.2	40.76	V	74	-33.24	Peak	2.04	270	
4339.2	33.88	V	54	-20.12	Avg	2.04	270	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/30/05
 Lab: B
 Tested By: Kyle Fujimoto

433.92 MHz Version - X Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1301.76	33.49	H	74	-40.51	Peak	1.64	225	
1301.76	26.61	H	54	-27.39	Avg	1.64	225	
1735.7	49.01	H	80.8	-31.79	Peak	1.73	270	
1735.7	42.13	H	60.8	-18.67	Avg	1.73	270	
2169.6	56.71	H	80.8	-24.09	Peak	1.86	270	
2169.6	49.83	H	60.8	-10.97	Avg	1.86	270	
2603.52	44.42	H	80.8	-36.38	Peak	1.79	225	
2603.52	37.54	H	60.8	-23.26	Avg	1.79	225	
3037.44	48.13	H	80.8	-32.67	Peak	2.8	270	
3037.44	41.25	H	60.8	-19.55	Avg	2.8	270	
3471.36	42.61	H	80.8	-38.19	Peak	1.57	90	
3471.36	35.73	H	60.8	-25.07	Avg	1.57	90	
3905.28	39.94	H	74	-34.06	Peak	1.92	225	
3905.28	33.06	H	54	-20.94	Avg	1.92	225	
4339.2	45.7	H	74	-28.3	Peak	1.92	225	
4339.2	38.82	H	54	-15.18	Avg	1.92	225	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/30/05
 Lab: B
 Tested By: Kyle Fujimoto

433.92 MHz Version - Y Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1301.76	38.06	V	74	-35.94	Peak	2.19	135	
1301.76	31.18	V	54	-22.82	Avg	2.19	135	
1735.7	48.51	V	80.8	-32.29	Peak	2.38	90	
1735.7	41.63	V	60.8	-19.17	Avg	2.38	90	
2169.6	57.32	V	80.8	-23.48	Peak	3.75	180	
2169.6	50.44	V	60.8	-10.36	Avg	3.75	180	
2603.52	53.63	V	80.8	-27.17	Peak	3.86	225	
2603.52	46.75	V	60.8	-14.05	Avg	3.86	225	
3037.44	55.39	V	80.8	-25.41	Peak	2.53	315	
3037.44	48.51	V	60.8	-12.29	Avg	2.53	315	
3471.36	43.25	V	80.8	-37.55	Peak	1.77	225	
3471.36	36.37	V	60.8	-24.43	Avg	1.77	225	
3905.28	42.1	V	74	-31.9	Peak	3.08	225	
3905.28	35.22	V	54	-18.78	Avg	3.08	225	
4339.2	39.24	V	74	-34.76	Peak	3.08	225	
4339.2	32.36	V	54	-21.64	Avg	3.08	225	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/30/05
 Lab: B
 Tested By: Kyle Fujimoto

433.92 MHz Version - Y Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1301.76	33.13	H	74	-40.87	Peak	2.59	270	
1301.76	26.25	H	54	-27.75	Avg	2.59	270	
1735.7	41.71	H	80.8	-39.09	Peak	2.54	225	
1735.7	34.83	H	60.8	-25.97	Avg	2.54	225	
2169.6	47.39	H	80.8	-33.41	Peak	2.7	315	
2169.6	40.51	H	60.8	-20.29	Avg	2.7	315	
2603.52	48.47	H	80.8	-32.33	Peak	2.6	270	
2603.52	41.59	H	60.8	-19.21	Avg	2.6	270	
3037.44	44.34	H	80.8	-36.46	Peak	1.38	225	
3037.44	37.46	H	60.8	-23.34	Avg	1.38	225	
3471.36	43.4	H	80.8	-37.4	Peak	2.71	225	
3471.36	36.52	H	60.8	-24.28	Avg	2.71	225	
3905.28	41.23	H	74	-32.77	Peak	2.01	225	
3905.28	34.35	H	54	-19.65	Avg	2.01	225	
4339.2	40.27	H	74	-33.73	Peak	1.88	225	
4339.2	33.39	H	54	-20.61	Avg	1.88	225	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/30/05
 Lab: B
 Tested By: Kyle Fujimoto

433.92 MHz Version - Z Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1301.76	36.95	V	74	-37.05	Peak	2.27	315	
1301.76	30.07	V	54	-23.93	Avg	2.27	315	
1735.7	42.69	V	80.8	-38.11	Peak	2.27	225	
1735.7	35.81	V	60.8	-24.99	Avg	2.27	225	
2169.6	53.35	V	80.8	-27.45	Peak	2.59	90	
2169.6	46.47	V	60.8	-14.33	Avg	2.59	90	
2603.52	57.89	V	80.8	-22.91	Peak	1.26	225	
2603.52	51.01	V	60.8	-9.79	Avg	1.26	225	
3037.44	48.2	V	80.8	-32.6	Peak	1.95	270	
3037.44	41.32	V	60.8	-19.48	Avg	1.95	270	
3471.36	42.41	V	80.8	-38.39	Peak	1.46	225	
3471.36	35.53	V	60.8	-25.27	Avg	1.46	225	
3905.28	41.9	V	74	-32.1	Peak	1.26	225	
3905.28	35.02	V	54	-18.98	Avg	1.26	225	
4339.2	40.44	V	74	-33.56	Peak	1.26	315	
4339.2	33.56	V	54	-20.44	Avg	1.26	315	

FCC 15.231

Linx Technologies
 Keyfob Transmitter
 M/N: OTX-xxx-HH-KF#-MS

Date: 06/30/05
 Lab: B
 Tested By: Kyle Fujimoto

433.92 MHz Version - Z Axis

Duty Cycle: 45.27 %

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1301.76	37.53	H	74	-36.47	Peak	3	90	
1301.76	30.65	H	54	-23.35	Avg	3	90	
1735.7	44.97	H	80.8	-35.83	Peak	2.63	315	
1735.7	38.09	H	60.8	-22.71	Avg	2.63	315	
2169.6	53.61	H	80.8	-27.19	Peak	2.79	135	
2169.6	46.73	H	60.8	-14.07	Avg	2.79	135	
2603.52	51.65	H	80.8	-29.15	Peak	2.44	0	
2603.52	44.77	H	60.8	-16.03	Avg	2.44	0	
3037.44	52.46	H	80.8	-28.34	Peak	2.94	45	
3037.44	45.58	H	60.8	-15.22	Avg	2.94	45	
3471.36	44.6	H	80.8	-36.2	Peak	2.56	225	
3471.36	37.72	H	60.8	-23.08	Avg	2.56	225	
3905.28	42.51	H	74	-31.49	Peak	2.26	315	
3905.28	35.63	H	54	-18.37	Avg	2.26	315	
4339.2	41.85	H	74	-32.15	Peak	2.25	315	
4339.2	34.97	H	54	-19.03	Avg	2.25	315	

Linux Technologies
Keyfob Transmitter
M/N: OTX-xxx-HH-KF#-MS

Date: 06/30/05
Labs: A and B
Tested By: Kyle Fujimoto

Non Harmonic Emissions from the EUT -- 10 kHz to 4400 MHz

[illegible]

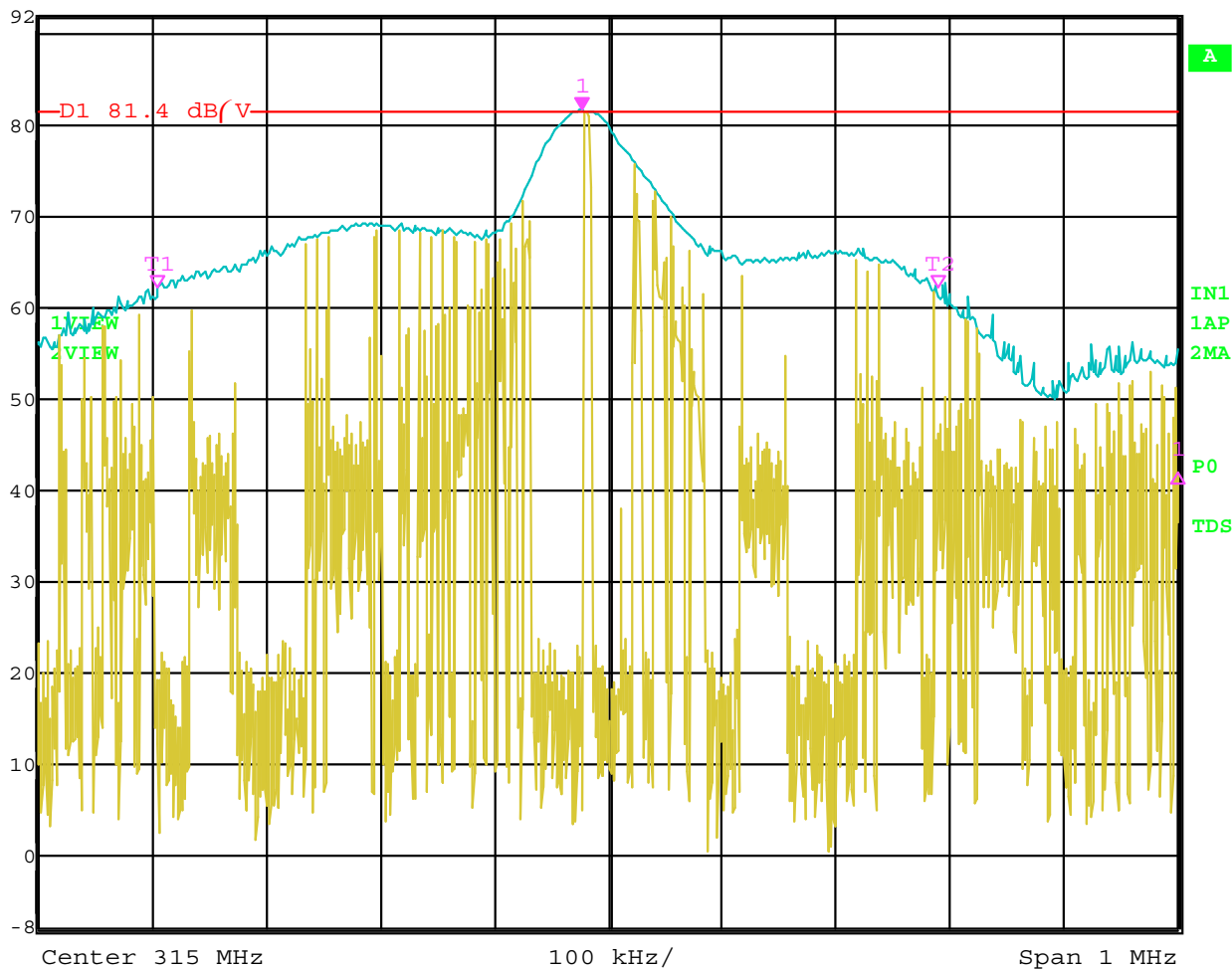
-20 dB BANDWIDTH

DATA SHEETS





Ref Lvl	Marker 1 [T2 ndB]	RBW	50 kHz	RF Att	20 dB
92 dB/V	ndB 20.00 dB	VBW	50 kHz		
	BW 685.37074148 kHz	SWT	5.5 ms	Unit	dB/V

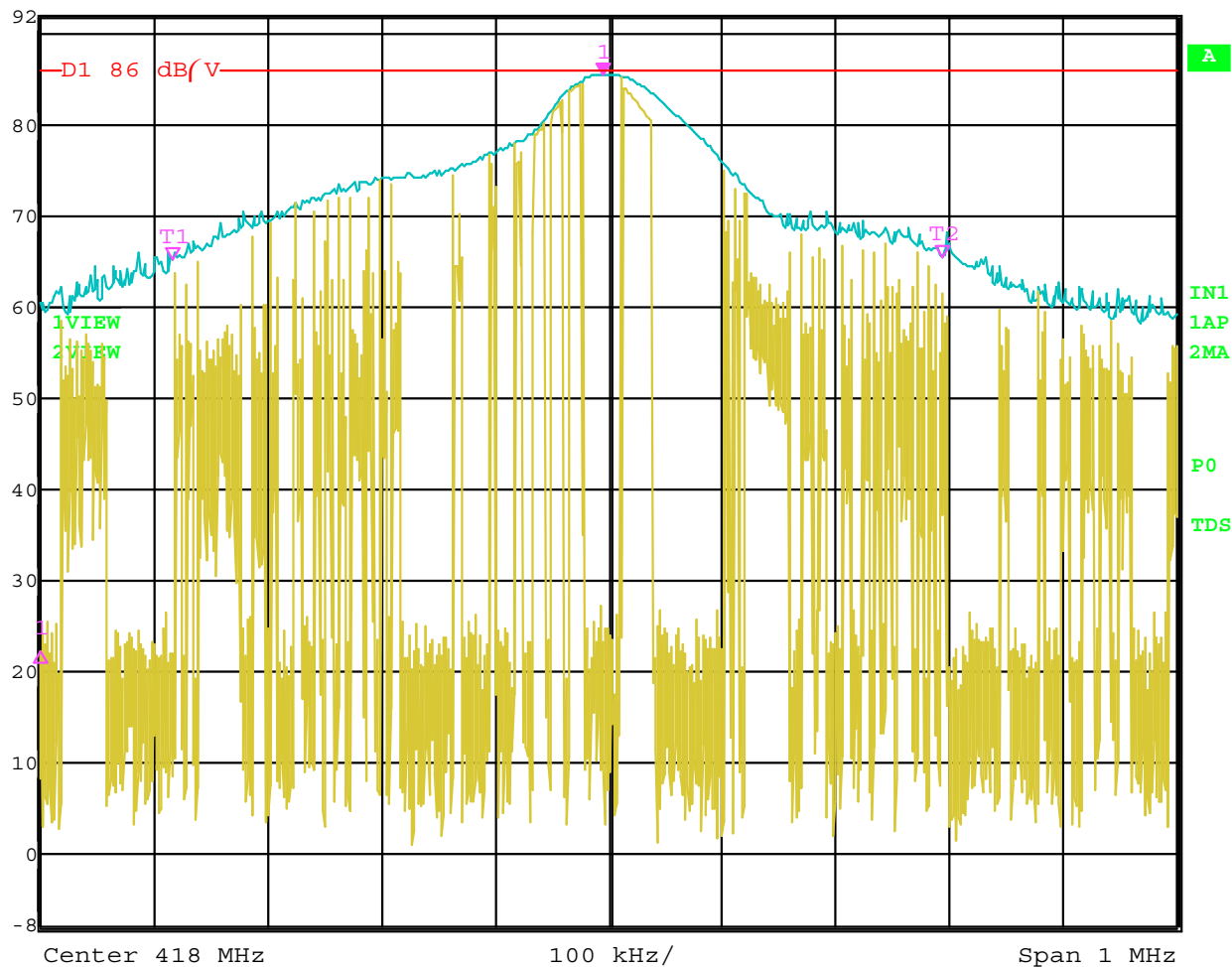


Date: 23.JUN.2005 19:40:58

Bandwidth of Fundamental – 315 MHz



Ref Lvl	Marker 1 [T2 ndB]	RBW	100 kHz	RF Att	20 dB
92 dB/V	ndB 20.00 dB	VBW	100 kHz		
	BW 677.35470942 kHz	SWT	5.5 ms	Unit	dB/V

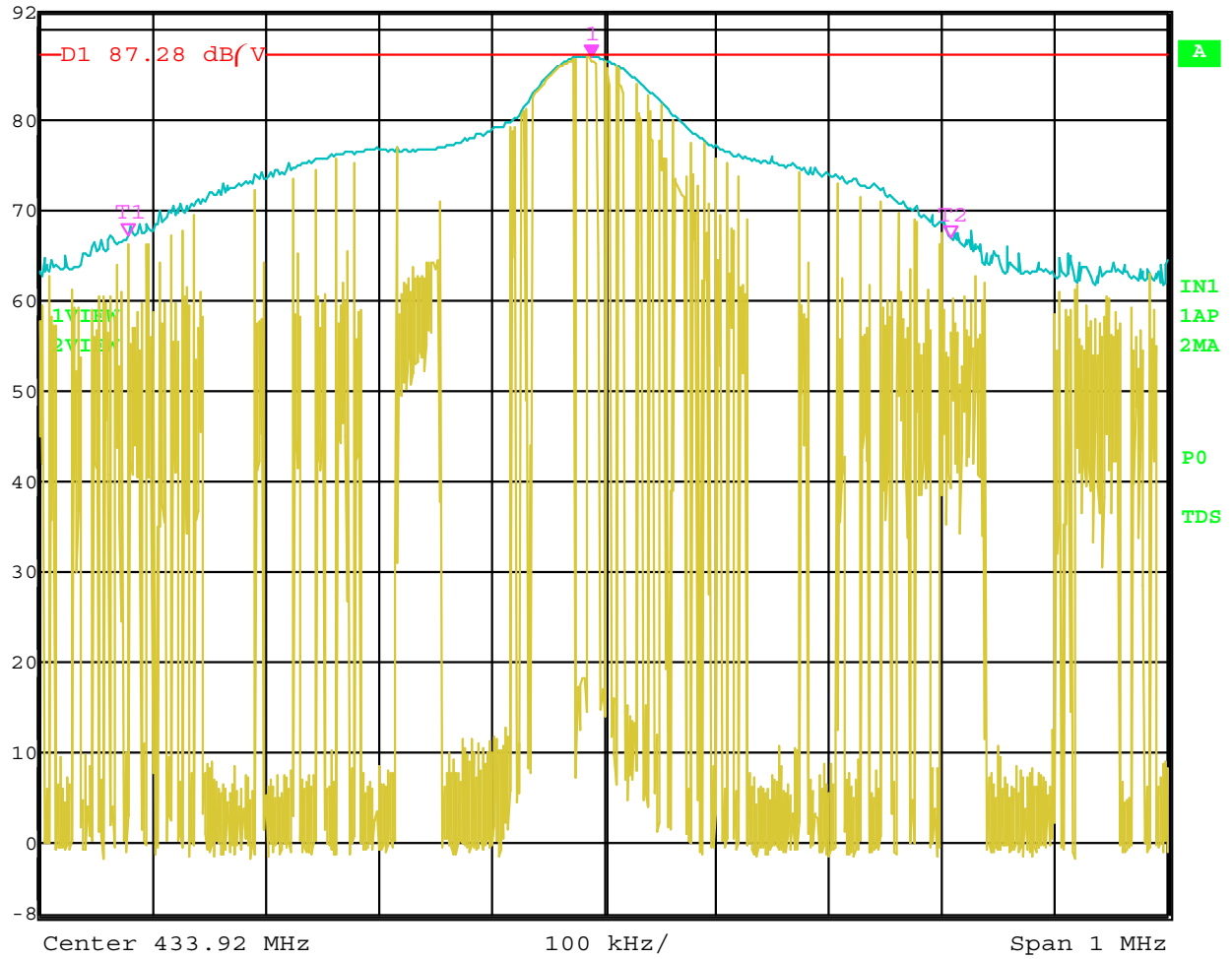


Date: 23.JUN.2005 19:39:03

Bandwidth of Fundamental – 418 MHz



Ref Lvl	Marker 1 [T2 ndB]	RBW	100 kHz	RF Att	0 dB
92 dB/V	ndB 20.00 dB	VBW	100 kHz		
	BW 729.45891784 kHz	SWT	5.5 ms	Unit	dB/V



Date: 30.JUN.2005 17:02:00

20 dB Bandwidth of the Fundamental – 433.92 MHz