FCC PART 15, SUBPART B and C
TEST REPORT

for

HANDLEBAR TRANSMITTER

MODEL: MWH-31

Prepared for
SETCOM CORPORATION
1400 NORTH SHORELINE BOULEVARD, SUITE B1
MOUNTAIN VIEW, CALIFORNIA 94043

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

JAMES ROSS

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

DATE: SEPTEMBER 9, 2005

	REPORT BODY	APPENDICES					TOTAL
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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:	Handlebar Transmitter Model: MWH-31 S/N: N/A
Product Description:	See Expository Statement
Modifications:	The EUT was not modified during the testing.
Manufacturer:	Setcom Corporation 1400 North Shoreline Boulevard, Suite B1 Mountain View, California 94043
Test Dates:	August 25 and 26, 2005
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.209 and 15.249
Test Procedure:	ANSI C63.4
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz - 30 MHz	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 – 9.2 GHz	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Handlebar Transmitter Model: MWH-31. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

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

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Setcom Corporation

Brian Montgomery President

Compatible Electronics, Inc.

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

2.4 Date Test Sample was Received

The test sample was received prior to the initial test date of September 7, 2005.

2.5 Disposition of the Test Sample

The sample has not yet been returned to Setcom Corporation 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	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 Handlebar Transmitter Model: MWH-31 (EUT) was connected to an external button and batteries. The EUT was tested while it was continuously transmitting and also tested in three orthogonal axis.

The antenna is directly connected to the EUT's PCB by a screw.

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

Cable 1 This is a 15 centimeter unshielded cable connecting the EUT to the external button. The cable is hard wired at each end.

Cable 2 This is a 1.5 meter unshielded cable connecting the EUT and batteries. The cable is hard wired at each end. The cable was bundled to a length of 1 meter. The cable has a molded ferrite at the EUT end.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID
HANDLEBAR TRANSMITTER (EUT)	SETCOM CORPORATION	MWH-31	N/A	**TLV-WPO1000**
EXTERNAL BUTTON	N/A	N/A	N/A	**N/A**
BATTERIES	N/A	N/A	N/A	**N/A**

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Radiate Emissions Data Capture Program	Compatible Electronics	2.0	N/A	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	June 10, 2005	1 Year
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22279	June 10, 2005	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	June 11, 2005	1 Year
EMI Receiver	Rohde & Schwarz	ESIB40	100172	October 28, 2004	1 Year
Preamplifier	Com-Power	PA-103	1582	February 3, 2005	1 Year
Microwave Preamplifier	Com-Power	PA-122	25195	February 25, 2005	1 Year
Loop Antenna	Com-Power	AL-130	17089	September 3, 2004	2 Year
Biconical Antenna	Com Power	AB-900	15250	March 11, 2005	1 Year
Log Periodic Antenna	Com Power	AL-100	16247	August 22, 2005	1 Year
Horn Antenna	Antenna Research	DRG-118/A	1053	January 16, 2004	2 Year
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
Antenna Mast	EMCO	2090	9609-1176	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
Computer	Hewlett Packard	D5251A 888	US74458128	N/A	N/A
Monitor	Hewlett Packard	D5258A	DK74889705	N/A	N/A

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 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 Active Loop Antenna Model: AL-130 was used for frequencies from 9 kHz to 30 MHz, 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 from 1 GHz to 9.2 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 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 9.2 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.

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.

8. CONCLUSIONS

The Handlebar Transmitter Model: MWH-31 meets all of the **Class B** specification limits defined in CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

APPENDIX A

LABORATORY RECOGNITIONS

LABORATORY RECOGNITIONS

Compatible Electronics has the following agency accreditations:

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

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

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

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

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

Federal Communications Commission

Industry Canada

Radio-Frequency Technologies (Competent Body)

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

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

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

No modifications were made to the EUT during the testing.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

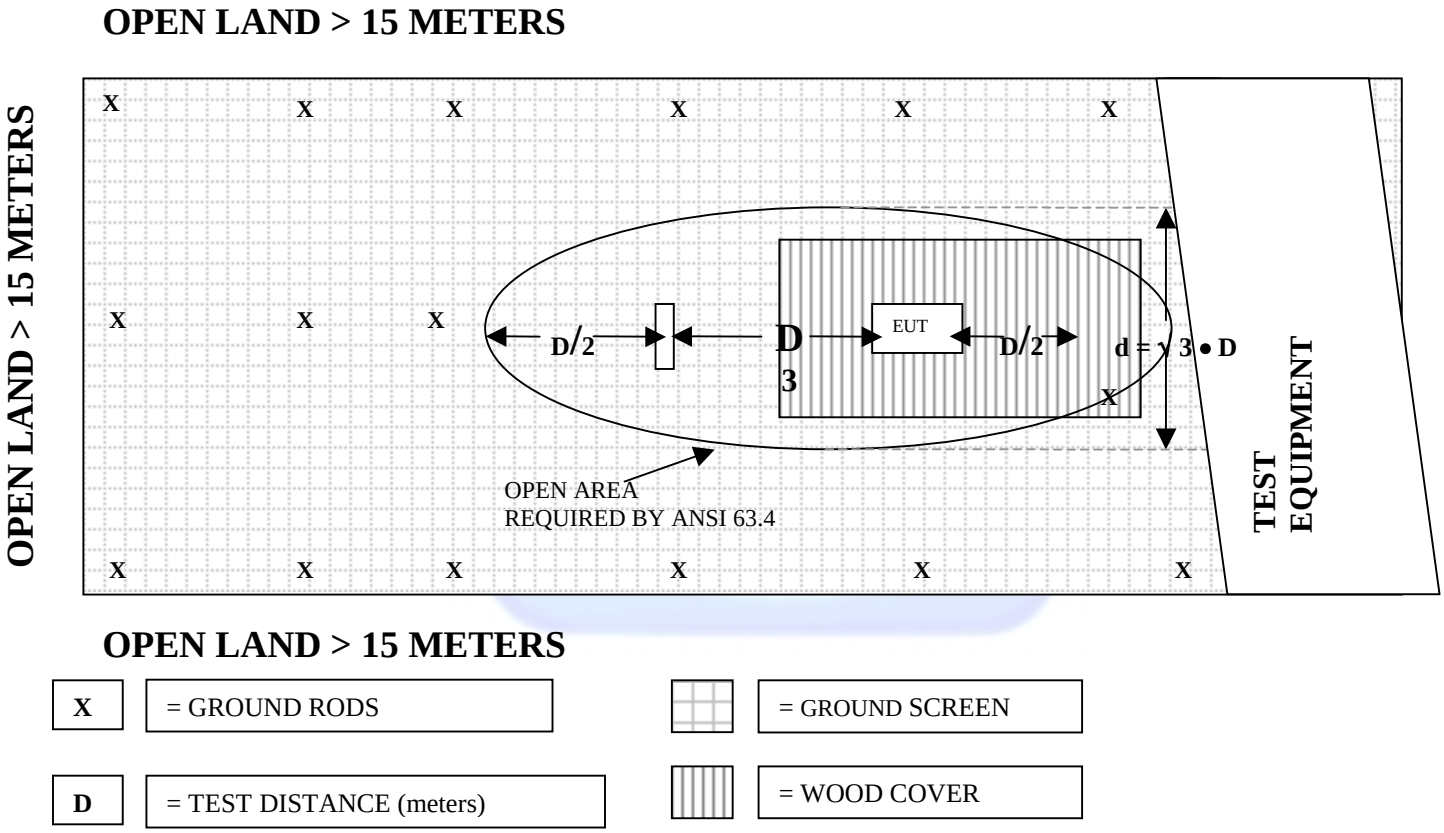
Handlebar Transmitter
Model: MWH-31
S/N: N/A

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 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

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: 16247

CALIBRATION DATE: AUGUST 22, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	12.70	700	19.72
400	13.19	800	20.59
500	14.99	900	21.10
600	15.95	1000	24.35

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 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		

FRONT VIEW

SETCOM CORPORATION
HANDLEBAR TRANSMITTER
Model: MWH-31
FCC SUBPART B AND C – RADIATED EMISSIONS – 09-08-05

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

SETCOM CORPORATION
HANDLEBAR TRANSMITTER
Model: MWH-31
FCC SUBPART B AND C – RADIATED EMISSIONS – 09-08-05

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

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REAR VIEW

SETCOM CORPORATION
HANDLEBAR TRANSMITTER
Model: MWH-31
FCC SUBPART B AND C – RADIATED EMISSIONS – 09-08-05

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS

DATA SHEETS

FCC 15.249
Setcom Corporation
Handlebar Transmitter
Model: MWH-31

Date: 09/08/05
Labs: A and B
Tested By: Kyle Fujimoto

Y-Axis Duty Cycle: 91.39% Peak to Average Ratio = -0.78 dB

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.48	89.76	H	94	-4.24	Peak	1.75	225	
1832.96	54.30	H	74	-19.7	Peak	1.21	135	
1832.96	53.52	H	54	-0.48	Avg	1.21	135	
2749.44	45.00	H	74	-29	Peak	2.7	225	
2749.44	44.22	H	54	-9.78	Avg	2.7	225	
3665.92	50.27	H	74	-23.73	Peak	2.51	180	
3665.92	49.49	H	54	-4.51	Avg	2.51	180	
4582.4	47.06	H	74	-26.94	Peak	1.62	270	
4582.4	46.28	H	54	-7.72	Avg	1.62	270	
5498.88		H	74		Peak			No Emissions
5498.88		H	54		Avg			Detected
6415.36		H	74		Peak			No Emissions
6415.36		H	54		Avg			Detected
7331.84		H	74		Peak			No Emissions
7331.84		H	54		Avg			Detected
8248.32		H	74		Peak			No Emissions
8248.32		H	54		Avg			Detected
9165.4		H	74		Peak			No Emissions
9165.4		H	54		Avg			Detected

FCC 15.249
Setcom Corporation
Handlebar Transmitter
Model: MWH-31

Date: 09/08/05
Labs: A and B
Tested By: Kyle Fujimoto

Y-Axis Duty Cycle: 91.39% Peak to Average Ratio = -0.78 dB

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.48	92.56	V	94	-1.44	Peak	1.5	90	
1832.96	54.47	V	74	-19.53	Peak	2.07	45	
1832.96	53.69	V	54	-0.31	Avg	2.07	45	
2749.44	46.61	V	74	-27.39	Peak	2.31	315	
2749.44	45.83	V	54	-8.17	Avg	2.31	315	
3665.92	50.02	V	74	-23.98	Peak	2.04	315	
3665.92	49.24	V	54	-4.76	Avg	2.04	315	
4582.4	48.14	V	74	-25.86	Peak	1.58	225	
4582.4	47.36	V	54	-6.64	Avg	1.58	225	
5498.88		V	74		Peak			No Emissions
5498.88		V	54		Avg			Detected
6415.36		V	74		Peak			No Emissions
6415.36		V	54		Avg			Detected
7331.84		V	74		Peak			No Emissions
7331.84		V	54		Avg			Detected
8248.32		V	74		Peak			No Emissions
8248.32		V	54		Avg			Detected
9165.4		V	74		Peak			No Emissions
9165.4		V	54		Avg			Detected

FCC 15.249

Setcom Corporation
Handlebar Transmitter
Model: MWH-31

Date: 09/08/05
Labs: A and B
Tested By: Kyle Fujimoto

X-Axis Duty Cycle: 91.39% Peak to Average Ratio = -0.78 dB

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.48	93.96	H	114	-20.04	Peak	1.5	90	
916.48	93.54	H	94	-0.46	QP	1.5	90	
1833.08	54.39	H	74	-19.61	Peak	1.57	225	
1833.08	53.61	H	54	-0.39	Avg	1.57	225	
2749.62	46.12	H	74	-27.88	Peak	2.75	225	
2749.62	45.34	H	54	-8.66	Avg	2.75	225	
3666.16	48.88	H	74	-25.12	Peak	1.55	225	
3666.16	48.10	H	54	-5.9	Avg	1.55	225	
4582.7	44.46	H	74	-29.54	Peak	1.43	315	
4582.7	43.68	H	54	-10.32	Avg	1.43	315	
5499.24		H	74		Peak			No Emissions
5499.24		H	54		Avg			Detected
6415.78		H	74		Peak			No Emissions
6415.78		H	54		Avg			Detected
7332.32		H	74		Peak			No Emissions
7332.32		H	54		Avg			Detected
8248.86		H	74		Peak			No Emissions
8248.86		H	54		Avg			Detected
9165.4		H	74		Peak			No Emissions
9165.4		H	54		Avg			Detected

FCC 15.249

Setcom Corporation
Handlebar Transmitter
Model: MWH-31

Date: 09/08/05
Labs: A and B
Tested By: Kyle Fujimoto

X-Axis Duty Cycle: 91.39% Peak to Average Ratio = -0.78 dB

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.48	93.26	V	114	-20.74	Peak	1.5	90	
916.48	92.78	V	94	-1.22	QP	1.5	90	
1833.08	54.31	V	74	-19.69	Peak	1.33	225	
1833.08	53.53	V	54	-0.47	Avg	1.33	225	
2749.62	48.80	V	74	-25.2	Peak	2.57	225	
2749.62	48.02	V	54	-5.98	Avg	2.57	225	
3666.16	50.61	V	74	-23.39	Peak	1.17	225	
3666.16	49.83	V	54	-4.17	Avg	1.17	225	
4582.7	46.06	V	74	-27.94	Peak	2.58	315	
4582.7	45.28	V	54	-8.72	Avg	2.58	315	
5499.24		V	74		Peak			No Emissions
5499.24		V	54		Avg			Detected
6415.78		V	74		Peak			No Emissions
6415.78		V	54		Avg			Detected
7332.32		V	74		Peak			No Emissions
7332.32		V	54		Avg			Detected
8248.86		V	74		Peak			No Emissions
8248.86		V	54		Avg			Detected
9165.4		V	74		Peak			No Emissions
9165.4		V	54		Avg			Detected

FCC 15.249

Setcom Corporation
Handlebar Transmitter
Model: MWH-31

Date: 09/08/05
Labs: A and B
Tested By: Kyle Fujimoto

Z-Axis Duty Cycle: 91.39% Peak to Average Ratio = -0.78 dB

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.48	93.36	H	114	-20.64	Peak	1.75	90	
916.48	92.99	H	94	-1.01	QP	1.75	90	
1833.08	53.06	H	74	-20.94	Peak	1.53	180	
1833.08	52.28	H	54	-1.72	Avg	1.53	180	
2749.62	44.23	H	74	-29.77	Peak	2.64	180	
2749.62	43.45	H	54	-10.55	Avg	2.64	180	
3666.16	47.69	H	74	-26.31	Peak	1.6	225	
3666.16	46.91	H	54	-7.09	Avg	1.6	225	
4582.7	46.54	H	74	-27.46	Peak	1.6	270	
4582.7	45.76	H	54	-8.24	Avg	1.6	270	
5499.24		H	74		Peak			No Emissions
5499.24		H	54		Avg			Detected
6415.78		H	74		Peak			No Emissions
6415.78		H	54		Avg			Detected
7332.32		H	74		Peak			No Emissions
7332.32		H	54		Avg			Detected
8248.86		H	74		Peak			No Emissions
8248.86		H	54		Avg			Detected
9165.4		H	74		Peak			No Emissions
9165.4		H	54		Avg			Detected

FCC 15.249

Setcom Corporation
Handlebar Transmitter
Model: MWH-31

Date: 09/08/05
Labs: A and B
Tested By: Kyle Fujimoto

Z-Axis Duty Cycle: 91.39% Peak to Average Ratio = -0.78 dB

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.48	90.36	V	94	-3.64	Peak	1.75	90	
1833.08	54.01	V	74	-19.99	Peak	2.05	315	
1833.08	53.23	V	54	-0.77	Avg	2.05	315	
2749.62	46.21	V	74	-27.79	Peak	2.63	135	
2749.62	45.43	V	54	-8.57	Avg	2.63	135	
3666.16	49.72	V	74	-24.28	Peak	2.03	225	
3666.16	48.94	V	54	-5.06	Avg	2.03	225	
4582.7	46.64	V	74	-27.36	Peak	2.24	90	
4582.7	45.86	V	54	-8.14	Avg	2.24	90	
5499.24		V	74		Peak			No Emissions
5499.24		V	54		Avg			Detected
6415.78		V	74		Peak			No Emissions
6415.78		V	54		Avg			Detected
7332.32		V	74		Peak			No Emissions
7332.32		V	54		Avg			Detected
8248.86		V	74		Peak			No Emissions
8248.86		V	54		Avg			Detected
9165.4		V	74		Peak			No Emissions
9165.4		V	54		Avg			Detected

Test Location : Compatible Electronics Page : 1/1
Customer : Setcom Corporation Date : 9/08/2005
Manufacturer : Setcom Corporation Time : 8:37:08
Eut name : Handlebar Transmitter Lab : A
Model : MWH-31 Test Distance : 3 Meters
Serial # : N/A
Specification : FCC B
Distance correction factor (20 * log(test/spec) : 0.00
Test Mode : Spurious Emissions from the EUT 10 kHz to 1 GHz
Temperature 75 Degrees F., Relative Humidity 32%
Vertical and Horizontal Polarization
Tested By: Kyle Fujimoto

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	42.125	49.40	1.85	10.64	33.02	28.86	40.00	-11.14
2H	108.970	37.10	2.85	11.51	33.16	18.31	43.50	-25.19
3V	114.825	38.90	2.95	12.37	33.14	21.08	43.50	-22.42
4V	157.059	38.50	3.23	12.87	33.00	21.60	43.50	-21.90
5V	194.570	38.00	3.54	15.41	33.00	23.95	43.50	-19.55
6V	205.770	38.80	3.65	15.80	33.00	25.25	43.50	-18.25
7V	213.014	38.90	3.71	15.93	33.00	25.53	43.50	-17.97
8V	218.470	39.20	3.75	16.02	33.00	25.97	46.00	-20.03
9V	320.047	40.20	4.49	12.81	32.92	24.59	46.00	-21.41
10V	324.244	49.40	4.55	12.83	32.90	33.89	46.00	-12.11
11H	325.496	39.50	4.57	12.84	32.89	24.02	46.00	-21.98
12H	349.495	39.50	4.89	12.96	32.80	24.55	46.00	-21.45
13H	538.358	37.70	6.71	15.38	32.50	27.29	46.00	-18.71
14H	800.619	32.40	6.50	20.59	32.20	27.29	46.00	-18.71

FCC 15.249 and FCC Class B

Setcom Corporation
Handlebar Transmitter
Model: MWH-31

Date: 09/08/05
Lab: B
Tested By: Kyle Fujimoto

Digital Portion -- 1 GHz to 9.2 GHz -- Vertical and Horizontal Polarization

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions
								Found from the Digital
								Portiion
								from 1 GHz to 9.2 GHz
								for both Vertical and
								Horizontal Polarizations