FCC PART 15, SUBPART B and C
TEST REPORT

for

REMOTE CONTROL

MODEL: HYDRA-V

Prepared for
HYDRA-REMOTE, INC.
412 SOUTH CHICAGO STREET
ROYAL CENTER, INDIANA 46978

Prepared by:_____

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DATE: JANAUARY 16, 2006

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
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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:	Remote Control Model: Hydra-V S/N: N/A
Product Description:	See Expository Statement
Modifications:	The EUT was not modified during the testing.
Manufacturer:	Hydra-ReMote, Inc. 412 South Chicago Street Royal Center, Indiana 46978
Test Dates:	January 3, 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 operates on battery power only and cannot be plugged into the AC public mains.
2	Radiated RF Emissions, 10 kHz – 4.4 GHz	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.231.

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Remote Control Model: Hydra-V. 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

Hydra-ReMote, Inc.

Theresa S. Schroder President

Compatible Electronics, Inc.

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 January 3, 2006.

2.5 Disposition of the Test Sample

The sample has not yet been returned to Hydra-ReMote, Inc. 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 Remote Control Model: Hydra-V (EUT) was tested as a stand-alone device. The EUT was tested while it was continuously transmitting and in three orthogonal axis. The EUT has an antenna that is soldered to its RF PCB.

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.

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	SERIAL NUMBER	FCC ID
REMOTE CONTROL (EUT)	HYDRA-REMOTE, INC.	HYDRA-V	N/A	**TWR-866-HYDRA-RM**

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
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	June 10, 2005	June 10, 2006
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22279	June 10, 2005	June 10, 2006
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	June 11, 2005	June 11, 2006
EMI Receiver	Rohde & Schwarz	ESIB40	100172	October 28, 2004	October 28, 2006
Preamplifier	Com Power	PA-103	1582	February 3, 2005	Feb. 3, 2006
Microwave Preamplifier	Com-Power	PA-122	181917	March 3, 2005	March 3, 2006
Biconical Antenna	Com Power	AB-900	15250	March 11, 2005	Mar. 11, 2006
Log Periodic Antenna	Com Power	AL-100	16247	August 22, 2005	Aug. 22, 2006
Horn Antenna	Com Power	AH-118	10073	July 27, 2004	July 27, 2006
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
Loop Antenna	Com Power	AL-130	17070	July 28, 2005	July 28, 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 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 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 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 4.4 GHz. The spectrum analyzer and EMI Receiver were used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer or 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 4.4 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.

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.

7.2 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 Remote Control Model: Hydra-V 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

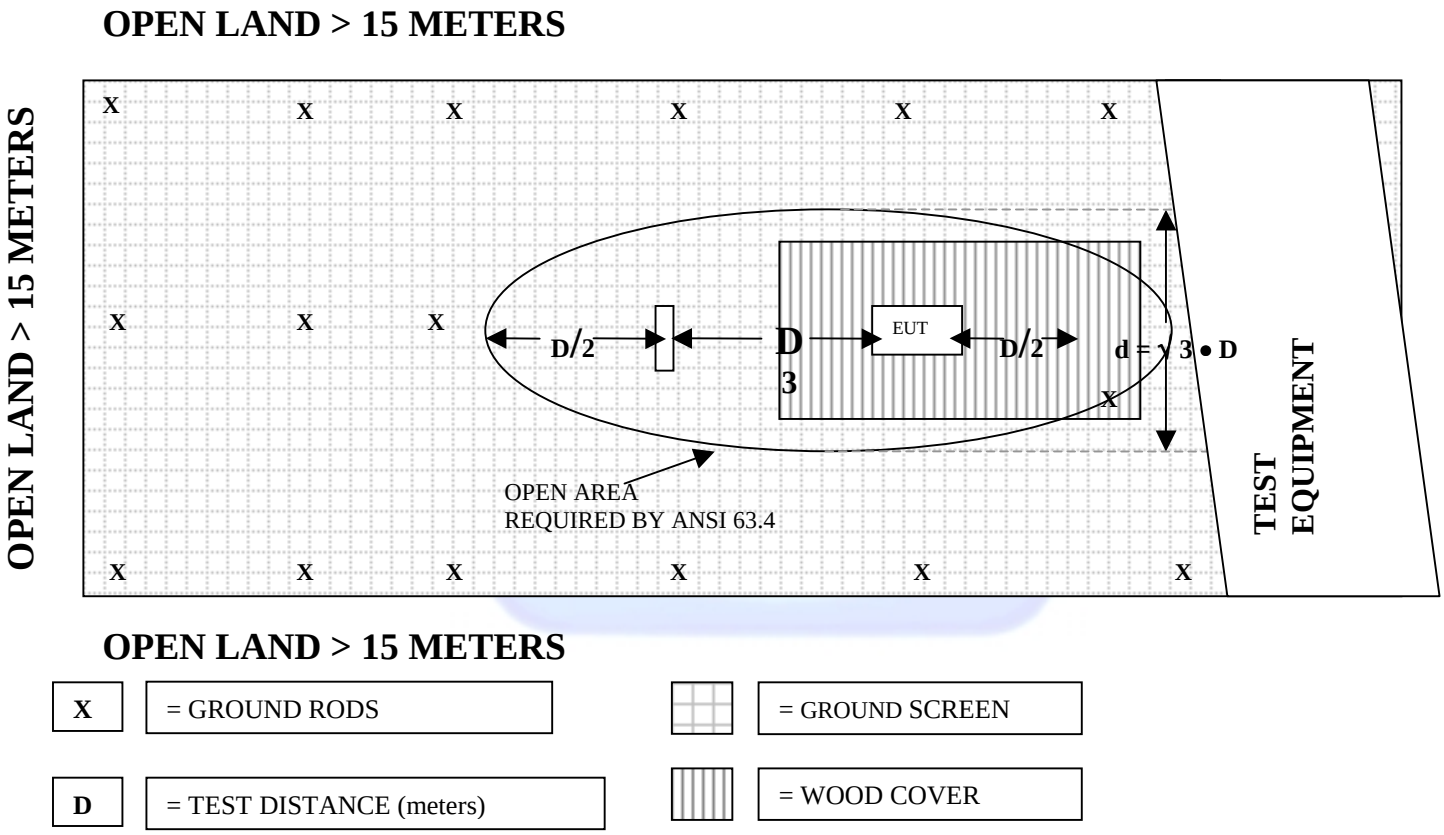
Remote Control
Model: Hydra-V
S/N: N/A

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: 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

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 AL-130

LOOP ANTENNA

S/N: 17070

CALIBRATION DATE: JULY 28, 2005

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-43.3	8.16
0.01	-44.1	7.41
0.02	-44.0	7.54
0.05	-42.7	8.8
0.07	-42.0	9.53
0.1	-41.7	9.84
0.2	-43.6	7.87
0.3	-40.9	10.6
0.5	-41.0	10.7
0.7	-40.5	10.97
1	-40.5	11.04
2	-40.5	11.03
3	-40.6	10.9
4	-42.9	8.63
5	-44.3	7.23
10	-53.7	-2.7
15	-62.6	-11.14
20	-58.9	-7.3
25	-51.5	-11.6
30	-63.1	8.9

COM-POWER AH-118

HORN ANTENNA

S/N: 10073

CALIBRATION DATE: JULY 27, 2004

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	25.3	10.0	39.8
1.5	28.3	10.5	38.6
2.0	31.5	11.0	38.5
2.5	31.2	11.5	40.4
3.0	30.4	12.0	42.0
3.5	30.5	12.5	41.7
4.0	30.9	13.0	41.9
4.5	32.0	13.5	43.7
5.0	34.1	14.0	45.5
5.5	33.7	14.5	45.8
6.0	34.2	15.0	40.5
6.5	35.1	15.5	41.8
7.0	37.1	16.0	41.5
7.5	40.4	16.5	40.2
8.0	39.8	17.0	43.3
8.5	38.4	17.5	46.6
9.0	37.5	18.0	47.1
9.5	42.4		

COM-POWER PA-122

MICROWAVE PREAMPLIFIER

S/N: 181917

CALIBRATION DATE: MARCH 3, 2005

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	34.230	6.0	35.260
1.1	34.120	6.5	34.790
1.2	34.030	7.0	33.720
1.3	33.890	7.5	33.290
1.4	33.730	8.0	33.480
1.5	33.570	8.5	34.550
1.6	33.490	9.0	35.640
1.7	33.420	9.5	36.280
1.8	33.370	10.0	36.150
1.9	33.340	11.0	33.340
2.0	33.310	12.0	33.030
2.5	33.250	13.0	34.310
3.0	33.440	14.0	33.400
3.5	33.600	15.0	32.770
4.0	33.970	16.0	33.890
4.5	34.500	17.0	34.840
5.0	34.990	18.0	33.767
5.5	35.340		

FRONT VIEW

HYDRA-REMOTE, INC.
REMOTE CONTROL
Model: HYDRA-V
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB A – 10 kHz to 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

HYDRA-REMOTE, INC.
REMOTE CONTROL
Model: HYDRA-V
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB A – 10 kHz to 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

HYDRA-REMOTE, INC.
REMOTE CONTROL
Model: HYDRA-V
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB A – 1 GHz to 4.4 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

HYDRA-REMOTE, INC.
REMOTE CONTROL
Model: HYDRA-V
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB A – 1 GHz to 4.4 GHz

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	Hydra-ReMote, Inc.	DATE	1/3/2006
EUT	Remote Control	DUTY CYCLE	41.815 %
MODEL	Hydra-V	PEAK TO AVG	-7.57335798 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
433.9200	44.8	37.2 A	V	1.3	315	X	LOW	13.9	5.6	0.0	0.0	0.0	56.7	-24.1	80.8	
433.9200	55.2	47.6 A	V	1.0	290	Y	LOW	13.9	5.6	0.0	0.0	0.0	67.2	-13.6	80.8	
433.9200	56.0	48.4 A	V	1.1	15	Z	LOW	13.9	5.6	0.0	0.0	0.0	67.9	-12.9	80.8	
433.9200	54.0	46.4 A	H	1.0	270	X	LOW	13.9	5.6	0.0	0.0	0.0	65.9	-14.9	80.8	
433.9200	51.8	44.2 A	H	1.2	45	Y	LOW	13.9	5.6	0.0	0.0	0.0	63.7	-17.1	80.8	
433.9200	54.4	46.8 A	H	1.3	90	Z	LOW	13.9	5.6	0.0	0.0	0.0	66.3	-14.5	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	Hydra-ReMote, Inc.	DATE	1/3/2006
EUT	Remote Control	DUTY CYCLE	41.815 %
MODEL	Hydra-V	PEAK TO AVG	-7.57335798 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
867.8400	50.6	43.0 A	V	1.3	270	X		20.9	6.7	32.2	0.0	0.0	38.5	-22.3	60.8	
867.8400	53.1	45.5 A	V	1.0	90	Y		20.9	6.7	32.2	0.0	0.0	41.0	-19.8	60.8	
867.8400	52.8	45.2 A	V	1.0	180	Z		20.9	6.7	32.2	0.0	0.0	40.7	-20.1	60.8	
867.8400	53.0	45.4 A	H	1.1	100	X		20.9	6.7	32.2	0.0	0.0	40.9	-19.9	60.8	
867.8400	50.6	43.0 A	H	1.1	50	Y		20.9	6.7	32.2	0.0	0.0	38.5	-22.3	60.8	
867.8400	53.3	45.7 A	H	2.2	80	Z		20.9	6.7	32.2	0.0	0.0	41.2	-19.6	60.8	

* 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	Hydra-ReMote, Inc.	DATE	1/3/2006
EUT	Remote Control	DUTY CYCLE	41.815 %
MODEL	Hydra-V	PEAK TO AVG	-7.57335798 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
1301.7600	47.5	39.9 A	V	1.1	270	X	LOW	27.3	2.8	33.9	0.0	0.0	**36.1**	**-17.9**	**54.0**	
1301.7600	50.8	43.2 A	V	1.5	165	Y	LOW	27.3	2.8	33.9	0.0	0.0	**39.4**	**-14.6**	**54.0**	
1301.7600	50.4	42.8 A	V	2.4	5	Z	LOW	27.3	2.8	33.9	0.0	0.0	**39.0**	**-15.0**	**54.0**	
1301.7600	48.4	40.8 A	H	1.5	92	X	LOW	27.3	2.8	33.9	0.0	0.0	**37.0**	**-17.0**	**54.0**	
1301.7600	45.4	37.8 A	H	2.3	358	Y	LOW	27.3	2.8	33.9	0.0	0.0	**34.0**	**-20.0**	**54.0**	
1301.7600	50.1	42.5 A	H	2.2	90	Z	LOW	27.3	2.8	33.9	0.0	0.0	**38.7**	**-15.3**	**54.0**	

* 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	Hydra-ReMote, Inc.	DATE	1/3/2006
EUT	Remote Control	DUTY CYCLE	41.815 %
MODEL	Hydra-V	PEAK TO AVG	-7.57335798 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
1735.6800	46.1	38.5 A	V	2.8	35	X	LOW	29.9	3.8	33.4	0.0	0.0	38.8	-22.0	60.8	
1735.6800	48.6	41.0 A	V	2.0	180	Y	LOW	29.9	3.8	33.4	0.0	0.0	41.3	-19.5	60.8	
1735.6800	48.9	41.3 A	V	1.1	170	Z	LOW	29.9	3.8	33.4	0.0	0.0	41.6	-19.2	60.8	
1735.6800	45.3	37.7 A	H	1.4	15	X	LOW	29.9	3.8	33.4	0.0	0.0	38.0	-22.8	60.8	
1735.6800	46.6	39.0 A	H	2.3	260	Y	LOW	29.9	3.8	33.4	0.0	0.0	39.3	-21.5	60.8	
1735.6800	46.0	38.4 A	H	1.4	90	Z	LOW	29.9	3.8	33.4	0.0	0.0	38.7	-22.1	60.8	

* 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	**Hydra-ReMote, Inc.**	**DATE**	**1/3/2006**
EUT	**Remote Control**	**DUTY CYCLE**	**41.815 %**
MODEL	**Hydra-V**	**PEAK TO AVG**	**-7.57335798 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
2169.6000	48.5	40.9 A	V	2.6	15	X	LOW	31.4	4.0	33.3	0.0	0.0	**43.0**	**-17.8**	**60.8**	
2169.6000	50.6	43.0 A	V	2.0	180	Y	LOW	31.4	4.0	33.3	0.0	0.0	**45.1**	**-15.7**	**60.8**	
2169.6000	48.8	41.2 A	V	3.2	160	Z	LOW	31.4	4.0	33.3	0.0	0.0	**43.3**	**-17.5**	**60.8**	
2169.6000		A	H			X	LOW	31.4	4.0	33.3	0.0	0.0				**No emissions discovered**
2169.6000		A	H			Y	LOW	31.4	4.0	33.3	0.0	0.0				**No emissions discovered**
2169.6000	45.4	37.8 A	H	1.3	300	Z	LOW	31.4	4.0	33.3	0.0	0.0	**39.9**	**-20.9**	**60.8**	

* 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	Hydra-ReMote, Inc.	DATE	1/3/2006
EUT	Remote Control	DUTY CYCLE	41.815 %
MODEL	Hydra-V	PEAK TO AVG	-7.57335798 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
2603.5200	46.2	38.6 A	V	1.8	225	X	LOW	31.0	4.6	33.3	0.0	0.0	40.9	-19.9	60.8	
2603.5200		A	V			Y	LOW	31.0	4.6	33.3	0.0	0.0				No emissions discovered
2603.5200	47.3	39.7 A	V	1.7	45	Z	LOW	31.0	4.6	33.3	0.0	0.0	42.0	-18.8	60.8	
2603.5200		A	H			X	LOW	31.0	4.6	33.3	0.0	0.0				No emissions discovered
2603.5200	47.1	39.5 A	H	1.6	145	Y	LOW	31.0	4.6	33.3	0.0	0.0	41.8	-19.0	60.8	
2603.5200	47.8	40.2 A	H	1.8	105	Z	LOW	31.0	4.6	33.3	0.0	0.0	42.5	-18.3	60.8	

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** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	Hydra-ReMote, Inc.	DATE	1/3/2006
EUT	Remote Control	DUTY CYCLE	41.815 %
MODEL	Hydra-V	PEAK TO AVG	-7.57335798 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
3037.4400		A	V			X	LOW	30.4	5.3	33.4	0.0	0.0				No emissions discovered
3037.4400	44.4	36.8 A	V	1.8	270	Y	LOW	30.4	5.3	33.4	0.0	0.0	39.1	-21.7	60.8	
3037.4400		A	V			Z	LOW	30.4	5.3	33.4	0.0	0.0				No emissions discovered
3037.4400		A	H			X	LOW	30.4	5.3	33.4	0.0	0.0				No emissions discovered
3037.4400		A	H			Y	LOW	30.4	5.3	33.4	0.0	0.0				No emissions discovered
3037.4400	44.7	37.1 A	H	1.5	98	Z	LOW	30.4	5.3	33.4	0.0	0.0	39.4	-21.4	60.8	

* 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	Hydra-ReMote, Inc.	DATE	1/3/2006
EUT	Remote Control	DUTY CYCLE	41.815 %
MODEL	Hydra-V	PEAK TO AVG	-7.57335798 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
3471.3600	47.9	40.3 A	V	1.9	350	X	LOW	30.5	6.3	33.6	0.0	0.0	43.5	-17.3	60.8	
3471.3600	53.3	45.7 A	V	1.4	360	Y	LOW	30.5	6.3	33.6	0.0	0.0	48.9	-11.9	60.8	
3471.3600	49.1	41.5 A	V	1.6	95	Z	LOW	30.5	6.3	33.6	0.0	0.0	44.7	-16.1	60.8	
3471.3600	48.3	40.7 A	H	2.1	358	X	LOW	30.5	6.3	33.6	0.0	0.0	43.9	-16.9	60.8	
3471.3600	53.7	46.1 A	H	1.8	160	Y	LOW	30.5	6.3	33.6	0.0	0.0	49.3	-11.5	60.8	
3471.3600	52.1	44.5 A	H	1.9	310	Z	LOW	30.5	6.3	33.6	0.0	0.0	47.7	-13.1	60.8	

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** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	Hydra-ReMote, Inc.	DATE	1/3/2006
EUT	Remote Control	DUTY CYCLE	41.815 %
MODEL	Hydra-V	PEAK TO AVG	-7.57335798 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
3905.2800	46.4	38.8 A	V	2.0	350	X	LOW	30.8	6.3	33.9	0.0	0.0	42.1	-11.9	54.0	
3905.2800	47.0	39.4 A	V	1.9	45	Y	LOW	30.8	6.3	33.9	0.0	0.0	42.7	-11.3	54.0	
3905.2800	47.2	39.6 A	V	2.1	265	Z	LOW	30.8	6.3	33.9	0.0	0.0	42.9	-11.1	54.0	
3905.2800	45.6	38.0 A	H	1.7	305	X	LOW	30.8	6.3	33.9	0.0	0.0	41.3	-12.7	54.0	
3905.2800	48.1	40.5 A	H	1.4	348	Y	LOW	30.8	6.3	33.9	0.0	0.0	43.8	-10.2	54.0	
3905.2800	46.8	39.2 A	H	1.7	350	Z	LOW	30.8	6.3	33.9	0.0	0.0	42.5	-11.5	54.0	

* 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	**Hydra-ReMote, Inc.**	**DATE**	**1/3/2006**
EUT	**Remote Control**	**DUTY CYCLE**	**41.815 %**
MODEL	**Hydra-V**	**PEAK TO AVG**	**-7.57335798 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
4339.2000		A	V			X	LOW	31.7	7.1	34.3	0.0					**No emissions discovered**
4339.2000		A	V			Y	LOW	31.7	7.1	34.3	0.0					**No emissions discovered**
4339.2000		A	V			Z	LOW	31.7	7.1	34.3	0.0					**No emissions discovered**
4339.2000		A	H			X	LOW	31.7	7.1	34.3	0.0					**No emissions discovered**
4339.2000		A	H			Y	LOW	31.7	7.1	34.3	0.0					**No emissions discovered**
4339.2000		A	H			Z	LOW	31.7	7.1	34.3	0.0					**No emissions discovered**

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

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Test Location   : Compatible Electronics                    Page : 1/1
Customer        : Hydra-ReMote, Inc.                        Date :  1/03/2006
Manufacturer    : Hydra-ReMote, Inc.                        Time : 16:23:53
Eut name        : Remote Control                             Lab : A
Model           : Hydra-V                          Test Distance : 3.0 Meters
Serial #        : N/A
Specification   : FCC B
Distance correction factor (20 * log(test/spec)             :  0.00
Test Mode       : Spurious Emissions Final
                  Test Frequency Range:  10 kHz to 4.4 GHz
                  433.93 MHz Transmit Frequency
                  Test Engineer:  James Ross
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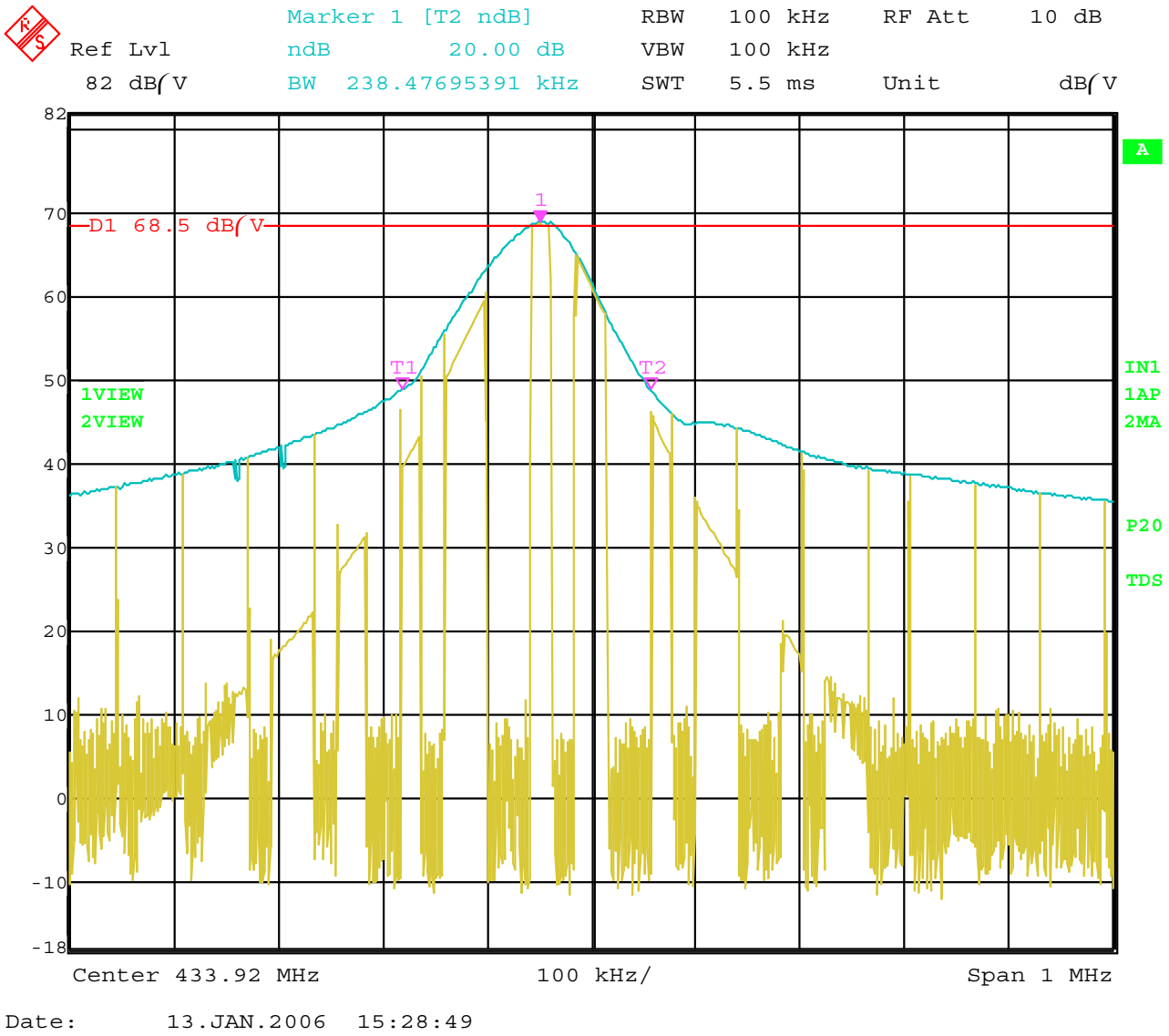
Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	Limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB

No spurious emissions were discovered within the above noted test frequency range.

-20 dB BANDWIDTH

DATA SHEET



Date: 13.JAN.2006 15:28:49

Bandwidth 20 dB of the Fundamental